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RECONSTITUTION: IMPLICATIONS FOR A FORCE PROJECTION ARMY

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE

by

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B.S., United States Military Academy, West Point, New York, 1981

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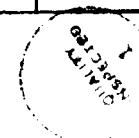
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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

RECONSTITUTION: IMPLICATIONS FOR A FORCE PROJECTION ARMY, by Major Mark H. Armstrong, USA, 151 pages.

This study analyzes the adequacy of current United States Army battlefield reconstitution doctrine in light of changes in Army warfighting doctrine. The study proposes that a smaller Army, operating primarily from bases located in the continental United States, will conduct reconstitution differently than the way the Army conducted reconstitution under its previous warfighting doctrine.

The analysis includes an explanation of the close relationship between changes in the strategic environment, changes in warfighting doctrine, and changes in reconstitution doctrine. The analysis also includes a historical review of Army warfighting and reconstitution doctrine since World War II, and provides specific historical examples of the reconstitution of Army combat forces in the context of existing doctrine.

The analysis concludes that short notice contingency operations into an immature theater will likely create a nearly imperceptible blend between the operational and tactical levels of war. Reconstitution in such operations may need to take advantage of strategic and operational lift capabilities to provide whole or sub-unit packages of combat forces into the theater to replace combat ineffective units. The potential rapid tempo of joint, combined, and interagency power projection operations in the 1990s will reduce the feasibility of conducting detailed regeneration as proposed under current reconstitution doctrine. The study concludes that current Army reconstitution doctrine inadequately addresses the requirements of a force projection Army.

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TABLE OF CONTENTS

	<u>Page</u>
APPROVAL PAGE	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
LIST OF FIGURES	vi
CHAPTER	
1. INTRODUCTION	1
2. REVIEW OF THE LITERATURE	17
3. RESEARCH METHODOLOGY	29
4. DOCTRINAL REVIEW	35
5. RECONSTITUTION DOCTRINAL AND HISTORICAL REVIEW	54
6. SCENARIO	77
7. ANALYSIS, CONCLUSIONS, AND RECOMMENDATIONS	94
ENDNOTES	116
APPENDIX	
A. GLOSSARY	129
B. FIGURES.....	133
BIBLIOGRAPHY	143
INITIAL DISTRIBUTION LIST.....	151

LIST OF FIGURES

	<u>Page</u>
Figure 1. The Doctrinal Development and Validation Model	133
Figure 2. US Tropic Command (USTROCOM) Command Relationships	134
Figure 3. The Tropic Ocean (Oceana Theater of Operations)	135
Figure 4. Map of Jaman and Bali	136
Figure 5. Jaman Defense Forces (JDF) Organization Chart	137
Figure 6. Balinese People's Defense Forces (BPDF) Organization Chart	138
Figure 7. Task Organization, Joint Task Force LIGHTNING	139
Figure 8. Task Organization, Task Force THUNDER	140
Figure 9. Phase II, Operation TROPIC LIGHTNING	141
Figure 10. JTF LIGHTNING Course of Action Comparison (Decision Matrix) .	142

CHAPTER ONE

INTRODUCTION

"Doctrine reflects the times in which it is written."¹

Paul H. Herbert, Deciding What Has to be Done

Reconstitution Revisited

Sustaining combat power is an essential element of winning on the modern battlefield. The United States (US) Army emphasizes the importance of combat power in its basic operations manual FM 100-5, Operations. This warfighting doctrinal publication says:

Four primary elements--maneuver, firepower, protection, and leadership -- combine to create combat power--the ability to fight. Their effective application and sustainment, in concert with one another, will decide the outcome of campaigns, major operations, battles, and engagements.²

However, combat power is dynamic and can change rapidly. The ability of a fighting force to rebuild itself following the loss or destruction of personnel or equipment is essential for restoring combat power. Successful reconstitution of an attrited force will not only restore the elements of combat power, but will ensure the unit is trained and has a command and control structure in place to make the unit combat effective.

Prior to 1992, the US Army had not published a field manual that established doctrine for battlefield reconstitution. In January 1992, the US Army published FM 100-9, Reconstitution.³ In January 1993, the Army circulated the final draft of its revised "keystone" warfighting doctrinal manual, "FM 100-5, Operations."⁴

Although the Army's AirLand Battle doctrine presented in the 1986 version of FM 100-5 was recently validated during Operations Just Cause, Desert Shield, and Desert Storm, it was based on the conditions of the Cold War.⁵ Because of dramatic world events, developing technologies, and significant changes to threats to US security interests, FM 100-5 was due for a major revision.

As the Army moves from a forward-deployed Army to a force projection Army under its new warfighting doctrine, it is time to revisit the issue of reconstitution to determine the validity of current reconstitution doctrine.

Background

The New World Order

Former President George Bush stated in the National Security Strategy of the United States in 1991:

The bitter struggle that divided the world for over two generations has come to an end. The collapse of Soviet domination in Eastern Europe means that the cold war is over....We have entered a new era.⁶

Not only did the diminishing influence of the Soviet Union in the 1980s signal an end to the Cold War, but there were other visible signs as well. Events such as the fall of the Berlin Wall in 1989, the break up of the Warsaw Pact nations, and the reunification of Germany clearly reflect a change in the strategic environment. Most significantly, the former Soviet Union dissolved as the world had known it and reemerged as the Commonwealth of Independent States (CIS) in August 1991.

As a result of these significant changes in the world order, the US no longer faces a clearly defined threat along the former East German and Czechoslovakian borders. The change of this new era has created instability and uncertainty. Many countries are attempting to find their place in the strategic environment. Consequently,

the US is refocusing its attention on existing and newly developing regional threats to US security interests.

Force Projection

When the US entered into this new era in which the threats to US security interests were redefined, former President Bush outlined a new four-part national defense strategy. One of the essential foundations of his defense strategy has been adopted by the current Clinton administration and is called crisis response.⁷ This new strategy may possibly change the way Army leaders plan and conduct reconstitution because of the ripple effect caused by the national strategy upon Department of Defense (DOD) and Army strategy.

US national military strategy is derived from the national security strategy and provides numerous strategic principles which guide the application of military force by the DOD.⁸ The primary principle that supports crisis response is power projection. Power projection is:

the ability of the nation to apply all or some of the elements of national power--political economic, informational, or military--to respond to crisis, contribute to deterrence, and enhance regional stability.⁹

The Army has further translated power projection at the DOD level, to force projection at the Army level. Force projection describes the Army's ability to rapidly mobilize, deploy, and conduct operations world-wide in support of national military objectives.¹⁰ Budget constraints have caused a major reduction and reshaping of the Army into primarily a Continental United States (CONUS) based Army. Although the forward presence of some Army forces overseas is still an essential ingredient in executing the national military strategy, force projection has taken over as the central

element of the Army's doctrine for the 1990s.¹¹ Consequently the Army's role in this new post-Cold War era is still emerging.

Role of the Army in the 1990s

"The Army is trained and ready to fight. The reason the Army exists is to fight and win the nation's wars."¹²

Not only is the Army of the nineties emerging as a force projection Army, it is a smaller Army and a "Total Army" which relies heavily upon the reserve component as well as the active component. Although the role of the Army in the 1990s is developing, its traditional primary role remains "decisive victory in war."¹³ The mission of the Army also remains unchanged. The Army's mission is to "organize, train, and equip forces for the conduct of prompt and sustained combat operations on land."¹⁴ In order meet its mission, and achieve decisive victory, the Army must:

1. Train to fight as a joint or combined force
2. Be versatile
3. Be deployable
4. Be expandible
5. Be capable of decisive victory¹⁵

To fulfill its role and successfully accomplish its mission, the Army must possess the capability to be sustained during joint, combined, and interagency operations. Reconstitution is a vital element of this sustainment capability. Although the Army has always viewed sustainment capability as fundamental to successful combat operations, the manner in which the Army in the nineties sustains itself is adapting to the changing strategic environment.

The Army can no longer count on operating in a mature theater with an existing infrastructure and large forward-deployed forces and pre-positioned war reserve stocks. Maritime, theater, and afloat pre-positioned stocks cannot be relied totally upon as the answer to the Army's sustainment needs. As the Army sharpens its focus on regional threats, there is a greater need than ever for the Army to rapidly project and sustain its forces from CONUS locations over long distances.

The Army must now expect to respond to regional crises through the conduct of contingency operations that are broader in scope than ever before. The Army's expanding role as a force projection Army includes not only operations involving combat, but also includes operations other than war. The types of operations other than war the Army can expect to conduct in the 1990s includes, but is not limited to the following activities:

1. Peacekeeping operations and peace enforcement.
2. Nation/security assistance.
3. Support to domestic civil authority.
4. Support for insurgency/counterinsurgency.
5. Noncombatant evacuation operations.
6. Humanitarian assistance and disaster relief.
7. Support to counterdrug operations.
8. Combatting terrorism.
9. Show of force.
10. Attacks and raids.¹⁶

How the Army sustains itself during all types of force projection operations, including operations other than war, is a significant concern for regional contingency planners. Because "reconstitution of forces on the battlefield is a continuing command

function in which logistics plays a major part," how the Army conducts reconstitution is a major concern for commanders, planners, and operators alike.¹⁷

Statement of the Problem and Research Questions

Problem Statement

Reconstitution restores the combat effectiveness of attrited forces so they can contribute further to decisive victory. This concept sounds simple when applied to conventional military operations for the US Army during the Cold War. A generous defense budget, high manpower levels and a relatively plentiful equipment stockpile set up conditions for reconstitution to be a mechanical exercise.

But with the end of the Cold War and a significantly reduced defense budget, there is now a need to take another look at how the Army will reconstitute its forces in light of its emerging role in the nineties. The problem, simply stated, is to identify how the Army of the 1990s will conduct reconstitution of combat forces on the battlefield.

Research Questions

The primary research question that will be answered in this thesis is the following: will the Army conduct battlefield reconstitution differently in the 1990s than it did during the Cold War in light of the dynamic, emerging role of the Army?

To answer this question adequately, several secondary questions must also be addressed. Secondary research questions which support the primary research question are:

1. What was the Army's previous warfighting doctrine during World War II and the Cold War?
2. What is the Army's current warfighting doctrine for the nineties?

3. What are the principal differences between the Army's past warfighting doctrine and the Army's current warfighting doctrine?
4. What was the Army's reconstitution doctrine during World War II and the Cold War?
 5. What is the Army's current reconstitution doctrine?
 6. What are the principal differences between the Army's past reconstitution doctrine and the Army's current reconstitution doctrine?
 7. What is the impact of the Army's force projection role on reconstitution operations?
 8. What is the relationship between warfighting doctrine and reconstitution doctrine?
 9. How will the Army's reconstitution doctrine change in light of the significant changes in warfighting doctrine?

None of the above questions can be answered with a simple yes or no response. This is because doctrine is not intended to be a template or model for success. It is simply a guide for action. FM 100-5 says, doctrine is an authoritative statement and "must be definitive enough to guide specific operations, yet remain adaptable enough to address diverse and varied situations worldwide."¹⁸

In light of the end of the Cold War and the changes taking place in the Army, these questions must be analyzed in detail in order to gain insight into how the Army will conduct reconstitution in the 1990s.

Hypotheses

This study hypothesizes that because of emerging changes in the Army's warfighting doctrine and role, the Army will conduct reconstitution differently in the 1990s than it planned for during the Cold War. The research that follows in subsequent

chapters will attempt to verify the validity of this hypothesis. It is through this attempt to investigate the hypothesis that the research questions will be answered.

The corresponding null hypothesis is that there will be no difference in the way the Army conducts reconstitution in the 1990s compared to during the Cold War.

Purpose and Objectives

Purpose

Reconstitution is not widely understood or talked about in the Army. To discuss reconstitution necessarily implies that casualties, death, and destruction must also be discussed. Although these are grim subjects when discussed in isolation, they are a part of the Army lexicon since the business of the Army is winning wars. The Army never has, and possibly never will, fight a war without practicing some aspect of reconstitution.

The principal purpose of this thesis is to openly discuss the reconstitution process as an integral part of the way the Army has historically operated; describe current reconstitution doctrine; and identify how the Army might apply the principles of reconstitution in the nineties.

Objectives

The objectives of this thesis support the broader purpose of the thesis as described above. Since the purpose of the thesis reflects the past, present, and future aspects of reconstitution in the Army, so do the following objectives:

1. To present and analyze the Army's past warfighting and reconstitution doctrine
2. To present and analyze the Army's new warfighting and current reconstitution doctrine

3. To reasonably project how the Army might conduct reconstitution in the nineties
4. To provide historical examples of US Army reconstitution
5. To analyze the relationship between the Army's warfighting doctrine and its reconstitution doctrine

Assumptions

This study has proceeded with several assumptions. Although these assumptions are very basic in nature, failure to accept them as fact would alter most aspects of this research effort. The assumptions for this thesis are:

1. The role of the Army is dynamic and evolutionary and reflects changes in both the strategic environment and doctrine.
2. The Cold War has ended and a new post-Cold War era has begun.
3. Past historical examples of battlefield reconstitution are still valid for study despite changes in the world order.
4. Current resource constraints may affect reconstitution activities but will not prevent them.

Definitions

The terms listed below are an integral part of the research study. These terms will add to the overall understanding of this thesis and provide a suitable framework for further development and analysis. Key terms are defined as follows:

Strategic environment. The strategic environment is the relationship between the nations, regions, cultures, and peoples of the world. These relationships may be expressed in terms of economic, social, political, informational, or military factors. Treaties and pacts affect the strategic environment as do the personalities of the leaders

of major political organizations. Examples of changes in the strategic environment occurred when atomic weapons technology was introduced in warfare during World War II, and when the Cold War ended and the world was no longer dominated by Bi-polar forces.

Force Projection. Force projection is a term that applies to the tactical and operational level. It is defined in FM 100-5 as:

the movement of forces from CONUS or a theater in response to requirements of war or operations other than war. Force projection operations span from mobilization and deployment of forces to their redeployment to CONUS or their home theater and subsequent demobilization.¹⁹

Noteworthy is that force projection operations usually begin as contingency operations in response to a crisis. Force projection is the way in which the Army contributes to the element of US national military strategy called power projection.²⁰

Reconstitution. FM 100-9 defines reconstitution as:

Extraordinary action that commanders plan and implement to restore units to a desired level of combat effectiveness commensurate with mission requirements and available resources.²¹

Reconstitution includes regeneration and reorganization. A common thread that runs between all forms of reconstitution is unit assessment. Commanders must continually assess the status of their organizations to determine if they still possess sufficient combat effectiveness to continue operations. Typical reconstitution actions include:

cross-leveling of equipment and supplies....Matching operational weapon systems with crews....Forming composite units (joining two or more attrited units to form a single mission capable unit).²²

Reconstitution efforts generally focus on:

reorganization of available combat power and regeneration of units using strategic and operational resources. Tactical units do not have the resources to regenerate units.²³

Reorganization. Reorganization is doctrinally defined as "action to shift resources within a degraded unit to increase its combat effectiveness."²⁴ There are two types of reorganization: (1) immediate and (2) deliberate. Immediate reorganization is quick, usually on-site, and includes those actions a commander can take to restore a minimum level of combat effectiveness. Deliberate reorganization is similar to immediate reorganization. However deliberate reorganization usually takes place when there is more time or more resources available. Deliberate reorganization activities will take place further to the rear if possible and will make use of more extensive equipment repair and cross-leveling between units.²⁵

Regeneration. "Regeneration is the rebuilding of a unit. It requires large-scale replacement of personnel, equipment and supplies."²⁶ Degraded units will require outside assistance due to a lack of available organic resources. Regeneration will normally be conducted away from immediate combat and may require establishment of an entire new chain of command. Regeneration activities will most likely include extensive training of the regenerated unit before it can be returned to combat.

Assessment. Assessment "measures a unit's capability to perform its mission."²⁷ It is a measure of a unit's combat effectiveness and occurs in two phases.

The first phase is conducted by unit commanders. Commanders assess the combat effectiveness of their units before, during, and after the battle. Commanders who determine their units are unable to continue to perform their mission because of their degraded status will request regeneration assistance.

The second phase of assessment consists of an evaluation of a unit's combat effectiveness by external elements. Often external elements will be able to conduct a more accurate assessment of a unit's need for reconstitution and can often make that assessment with the availability of resources in mind.

Combat effectiveness. Although not specifically defined in FM 100-9, combat effectiveness is the "ability of a unit to continue assigned missions."²⁸ Since it is the degradation of combat effectiveness that triggers reconstitution, this concept is fundamental to understanding reconstitution doctrine and is developed in more detail in Chapter 2, Literature Review.

Forward-deployed or forward-presence units. Forward-deployed or forward-presence units are those military forces pre-positioned regionally throughout the world that assist in deterring aggression and are available for immediate response to regional threats. Examples of major forward-deployed Army forces include those forces currently in Europe, Korea, Hawaii, and Panama.

Forward-deployed forces are able to be diverted from their immediate geographic locations to support other regional crises as necessary. A recent example of a diversion of this type was when VII (US) Corps was deployed to Southwest Asia during Operation Desert Shield.

Smaller forward-presence units are positioned throughout the world in an effort to establish a US presence in a particular region and contribute to deterring hostilities and supporting US interests abroad.

Army War Reserves. Army War Reserves are stocks of equipment and supplies that are acquired during peacetime for issue as required for Army operations. There are three categories of Army War Reserves:

First, OCONUS (Theater), afloat, and CONUS Reserves (normally all classes of supply measured in days of sustainment), second, Prepositioned Material Configured to Unit Sets (POMCUS), and third, Operational Projects (stocks set aside to support specific contingency operations). All three were used to support ODS, and all are being modified as they are reconstituted in order to better support the Army of the future.²⁹

Limitations

Some limitations constrained the research effort of this thesis. The most significant limitation is that there has not yet been an actual instance where reconstitution was executed on a large scale in the nineties. Although routine small unit reorganization occurred during Operations Just Cause and Desert Storm, there are not yet any historical combat examples of battalion or larger-sized reconstitution activities to analyze. Consequently, reconstitution plans and simulated combat exercises were analyzed in order to formulate conclusions on how reconstitution is likely to be practiced in the 1990s.

Additionally, the term reconstitution as it applies to military forces is a relatively new term occurring predominantly in post-Vietnam era literature even though the concepts practiced in reconstitution have been around indefinitely. Consequently, other related topics such as replacement operations, cross-leveling, cross training, redistribution, and combat losses were researched as they applied to historical examples.

Scope

This thesis will not attempt to address all aspects of reconstitution. The scope of this document has been necessarily narrowed in an effort to keep the topic of reconstitution relevant to the modern battlefield. Historical examples of reconstitution will only be evaluated as far back as World War II.

This study will not attempt to analyze the reconstitution of strategic forces as it applies to the mobilization of the reserve component and expansion of the Army. Rather this thesis will only focus on those aspects of reconstitution having impact at the operational and tactical level. The report of the research will highlight those occasions where strategic level reconstitution or replacement activities had a direct impact on operational and tactical level reconstitution activities.

In order to simplify the discussion, unless otherwise specified, all references to reconstitution apply to the general application of all aspects of reconstitution practices and doctrine.

Additionally, the scope of this thesis has been narrowed to only draw conclusions regarding force projection and crisis response operations of an anticipated short duration such as Operation Just Cause. Contingency or strike operations of a short duration within an immature theater are appreciably different than the most likely conventional operations expected during the Cold War.

Significance of the Study

...an army which has which has effectively developed--and can effectively implement--measures designed to rapidly put attrited formations back into combat may enjoy a capability to wage war far greater than that indicated by the size of its personnel and materiel resources.³⁰

The Army of the nineties will be at its lowest personnel level "since the lean years before the Korean War."³¹ Notwithstanding, the Army of the nineties will operate under the most constrained resources since the end of the Vietnam war. However, as the US begins to focus inwardly on domestic issues, the Army is being called upon to do more and more with less and less.

No longer does the American public only expect the Army to provide defense against armed aggression. The US constitution gives the Congress the authority to raise and maintain the Army and the Congress represents the American people. In the 1990s, the American public expects the Army to provide assistance in solving domestic problems at home within the constraints of the Posse Comitatus Act of 1878 which limits the use of federal military units or personnel. They also expect the Army to participate

as an instrument of the government in quelling international disturbances which affect US security, as well as providing humanitarian and relief effort to those countries and domestic civil authorities unable to help themselves.

Because of this paradigm shift, the Army has responded by modifying its warfighting doctrine. Already the Army has demonstrated the direction in which it is going through recent operations.

Contingency operations such as Operation Just Cause, Desert Shield, and Desert Storm serve as examples of how the Army of the nineties will respond to threats to US security through the rapid projection of combat power in a decisive way. Operation Provide Comfort and Restore Hope serve as recent examples of how the Army will be used to provide humanitarian assistance and protection for countries unable to adequately provide for themselves. Army participation in multinational/coalition peacekeeping or peace enforcement operations has become a normal expectation from America's citizens.

Interagency operations in which the DOD may not have the lead, are more likely in the nineties than ever before. Recent Army participation in disaster relief operations demonstrate America's desire to provide assistance to its own unfortunate citizens. Also the Army has recently been used as an instrument of the people to resolve domestic disturbances and stem the flow of drugs into the US, except as precluded by the Posse Comitatus Act.

Yet no matter what the type of operation the Army will be called upon to execute, the possibility exists that casualties will take place. Casualties may take place as a result of direct combat, terrorist attack, accidental incidents, or as a result of a host of other reasons. Loss of life and equipment are unfortunate, but realistic possibilities of Army life.

If and when an Army unit suffers casualties that degrade its combat effectiveness, reconstitution efforts must take place to quickly and efficiently restore that unit's combat effectiveness and ability to continue with its assigned missions. Having stated this premise, the significance of this study can be simply stated: As changes in the strategic environment necessitate changes in Army keystone warfighting doctrine, a reevaluation of reconstitution doctrine is essential to ensure it is consistent with how the Army will do business.

CHAPTER TWO

REVIEW OF THE LITERATURE

Literature Overview

Will the Army conduct reconstitution differently in the nineties than it did during the Cold War? This primary research question could not be answered without first answering the secondary research questions concerning warfighting and reconstitution doctrine and application.

Because of the direct link between warfighting doctrine and all other subordinate doctrine, separate chapters in this study will review literature sources which address warfighting and reconstitution doctrine in detail. Chapter Four of this study will review current and previous versions of FM 100-5, Operations, as well as key background documents that trace the development of Army warfighting doctrine. Chapter Four also reviews how doctrine was actually applied during the period under study. Chapter Five reviews sources that trace the development of the Army's reconstitution doctrine which is currently reflected in FM 100-9, Reconstitution. Likewise, Chapter Five provides a review of how reconstitution doctrine was applied in practice.

The remainder of the literature review was broken down into two major categories. The first category addresses reconstitution in general. The concept of reconstitution is basic, however, the actual execution of reconstitution can be very complex. Since doctrine is by definition a guide for action, it was essential to review documents that provided additional insight into what is a very detailed process. This

review included articles from periodicals, corporate reports, theses, and individual study projects that date back as far as 1979.

The second category deals with literature that address a variety of historical reconstitution examples. Included in this part of the literature review are books, periodicals, reports, government documents, and unpublished documents that cover reconstitution-related events as far back as WWII. Below is a summary of some of the primary documents that were used in this study.

Status of the Existing Literature

In 1980, in fulfillment of a Department of Defense contract, the BDM Corporation published a technical report entitled New Approaches to Reconstitution in High Intensity Conflict on the Modern Battlefield. This report was the most comprehensive document reviewed. It represented a detailed research effort addressing US requirements for reconstitution, current methods of restoring the combat effectiveness of combat units, and alternatives for executing reconstitution of attrited units as a result of high intensity combat on a central European Battlefield.¹

This report provided the framework upon which the US Army Training and Doctrine Command (TRADOC) developed the operational concept for reconstitution which was published in 1986 as TRADOC PAM 525-51, US Army Operational Concept for Reconstitution on the AirLand Battlefield. TRADOC PAM 525-51 in turn, served as the framework for the current doctrine as written in FM 100-9.

The BDM report recognized that there was more to restoring combat effectiveness within an attrited unit than merely bringing the unit back up to authorized equipment and personnel strength levels. The report discussed quantifiable and non-quantifiable indicators that contribute to a commander's assessment of a unit's combat effectiveness. The tangible indicators were discussed in detail. These included:

1. Command and control (physical absence of key leaders)
2. Accentuated personnel attrition
3. Accentuated equipment attrition
4. Cumulative attrition over time
5. Personnel resources
6. Logistics resources²

Although the report categorized the intangible factors that assist in assessing a unit's combat effectiveness, it did not analyze them in as much detail as the tangible factors. The intangible factors included:

1. Leadership
2. Morale
3. Esprit de corps
4. Motivation
5. Training³

The report did, however, discuss in detail the effects of human psychological stress on combat effectiveness. In particular it noted that soldiers will fight more for the love of their comrades than for their hatred of the enemy, and that creature comforts such as sleep, hot food, and dry clothes were significant contributors to soldier morale.

The report also emphasized the need to place regeneration capabilities well forward within the theater because of an already existing shortage of supply, maintenance, transportation services, and personnel resources.

One of the most significant aspects of the BDM report was the presentation of an overall concept for the conduct of reconstitution that proposes reconstitution should be conducted at the lowest possible level within the division.⁴ Ideally reconstitution is most efficiently conducted at the battalion or brigade level. Yet, when brigade or higher level units are significantly attrited, then corps or even theater assets are necessary.

Concepts such as assessment and recovery teams at the battalion, brigade and division level were introduced. The report proposed that these task organized teams (consisting of medical, transportation, maintenance, and engineer teams positioned well forward on the battlefield) would facilitate the reconstitution process.⁵

If the reconstitution effort could not be accomplished at division level or below, BDM suggested that the attrited unit receive large-scale regeneration with the assistance of a Corps Regeneration Unit (CRU) formed from support groups from the Corps Support Command (COSCOM) "on the basis of one CRU per supported division."⁶ Regardless of the level at which reconstitution needs to take place, the report concluded that the traditional piecemeal approach to restoring combat effectiveness would not work on a highly lethal, fast-paced, high-intensity battlefield.⁷

The contribution of the BDM report to this thesis was that it provided a base level of understanding of reconstitution as it applied to the Army's AirLand Battle doctrine during the latter part of the Cold War. Although the conclusions of the BDM report are not directly applicable to the post-Cold War years, especially those operations other than war that the Army will likely participate in, the report still has applicability. The conclusions of the report are still valid as they apply to the conventional warfare in a mature theater even under the Army's current warfighting doctrine for the nineties.

In 1983, the Combat Studies Institute (CSI) at the Command and General Staff College (CGSC) published a report entitled Unit Reconstitution-A Historical Perspective. This report was invaluable in the preparation of this thesis.

The CSI report provided a detailed analysis of the events surrounding the Battle of Schmidt in November 1944 involving the 28th Infantry Division. The report not only recounted the sequence of events surrounding the battle, but also provided an in-depth analysis of personnel and equipment losses and the impact that these losses had on the ability of the 28th Infantry Division to continue the fight.

The CSI report examined the 28th Infantry Division's experience in three parts. First it reviewed the battle as it unfolded, placing emphasis on those aspects of the battle that had an impact on reconstitution. Second, the report determined criteria that was used by the American military leadership in determining what types of reconstitution activities were necessary based upon the unit's combat effectiveness. Lastly, the report's treatment of the Battle of Schmidt described the actual regeneration process that the regiments of the 28th Infantry Division experienced.

Additionally, the CSI report analyzed other examples of reconstitution from WWI, WWII, Vietnam, and the 1973 Arab-Israeli War. The report included an analysis of American, British, French, German, and Israeli reconstitution experiences in the 20th century.

One of the most significant outcomes of the CSI report was a list of criteria used for unit reconstitution. These criteria were a synthesis of the results from the Schmidt analysis and various previously published reports to include the BDM report above. The criteria used for unit reconstitution as listed in the CSI report are the following:

1. The condition of troops at the beginning of the engagement
2. Terrain
3. Weather
4. Expectations of the troops entering battle
5. The intensity of combat
6. Physical condition of the men and equipment
7. Casualties
8. Support expected and received
9. Isolation
10. Intangibles: morale, esprit, unit pride, and unit cohesion⁸

The CSI report significantly contributed to this thesis. It was an excellent analytical document that described the reconstitution efforts following the Battle of Schmidt. It also served to provide an additional perspective upon which to project what criteria will trigger reconstitution activities and how the Army may conduct future reconstitution efforts under the Army's newly published warfighting doctrine.

Numerous theses and individual study projects also contributed to this research. In particular, Raymond L. Livingston completed a thesis in 1985 as a partial requirement for a Master of Military Art and Science (MMAS) from CGSC entitled "Reorganization During Combat--Considerations for a Mechanized Infantry Company." As the title implies Livingston's thesis focused on the reorganization process at the company level. Livingston outlined in detail the reconstitution process with particular emphasis on reorganization. He reviewed the existing 1985 Army concept for reconstitution and hypothesized how a mechanized infantry company would go through the reconstitution process in a conventional war scenario on the AirLand Battlefield of the 1980s.

Livingston also presented a very in-depth treatment of the development and application of indicators of combat effectiveness. He discussed combat effectiveness indicators from a historical perspective and from a US and Soviet doctrinal perspective. He showed how these indicators applied during reorganization at the company level.

Although his thesis was completed before the publication of the Army's first doctrinal field manual on reconstitution was published, it was developed along the lines of the Army's operational concept for reconstitution as reflected in TRADOC's Interim Operational Concept for Reconstitution of Combat Ineffective Units published in 1985. This TRADOC document then served as a stepping stone for TRADOC PAM 525-51, which in turn was the base document upon which FM 100-9 was developed.

Livingston's thesis was valuable in preparing this thesis because of the detailed analysis it contained on the reorganization process and combat effectiveness assessment. This added to a better overall understanding of reconstitution indicators, doctrine, and execution.

Nathan J. Power completed a monograph while at the School of Advanced Military Studies, CGSC, which focused on the leadership aspects of reconstitution. His project, entitled "Reconstitution: Leadership Methods and Considerations," proposes that during battles and engagements conducted at division level and below, reconstitution is a leadership decision, and not a logistics decision.⁹

He places strong emphasis on the concept that reconstitution must be planned in detail as part of the command estimate process, and that only reorganization can be conducted at division level and below. This concept is consistent with the conclusions found in the BDM report.¹⁰

Power's monograph also focuses on the Battle of Schmidt. However it analyzes other historical examples as well. Power reviews the reconstitution practices of the British in North Africa, the Germans on the Eastern Front, the US in Korea and Vietnam, and the Israelis during the 1973 war.

The Vietnam portion of Power's monograph was particularly useful in the preparation of this thesis because it concerned the Battle of Ia Drang Valley. Power summarizes the major action that took place in the Central Highlands of Vietnam in November 1965 involving the 1st Battalion, 7th Cavalry, 1st Cavalry Division (Airmobile). Power then describes the reconstitution practices that characterized replacement operations for the majority of the Vietnam War.

His discussion of Vietnam reconstitution practices concludes with a thought on technology. Power summarized by saying that although the helicopter may have been able to move individual replacements around the battlefield faster than ever before, large-

scale regeneration still had to be conducted at the operational level. This meant reorganization was still the primary reconstitution practice at division level and below, regardless of the arrival of the helicopter on the battlefield.¹¹

Two individual study projects authored by students at the US Army War College at Carlisle Barracks, Pennsylvania also contributed significantly to an overall understanding of the complexity of reconstitution. The first of these monographs was written by Thomas E. Johnson in 1989 and was entitled "Reconstitution: A Combat Force Multiplier." Johnson reviews fundamentals of reconstitution as they were written in 1989 primarily from the standpoint of TRADOC PAM 525-51. Because the Army's doctrine for reconstitution was still not widely understood, his primary goal was educating his readers about how, when, and where to conduct reconstitution and why reconstitution is such an important topic.

He also tackles the issue as to who is in charge of reconstitution. Johnson proposes that there is a great *misperception* within the Army as to who controls the reconstitution process. He concedes that the execution of reconstitution functions that deal with getting the actual personnel and supplies to right place on the battlefield rests with the logistician. However, he unequivocally states that the operations officer (S3/G3) is in charge.¹² He states that extensive coordination and planning must take place before the logisticians receive the orders to actually execute regeneration or reorganization.

Johnson highlights some of the critical tasks that must be planned in anticipation of reconstitution. He lists the following tasks as S3/G3 tasks during the planning process:¹³

1. Align reconstitution efforts in accordance with the tactical situation
2. Identify critical equipment supply and personnel shortfalls
3. Coordinate the reconstitution location

4. Recommend method of reconstitution
5. Ensure a coordinated flow of replacement personnel and equipment
6. Plan for the security of the reconstitution site
7. Identify training requirements and assist in execution of the training program

Of particular importance to this thesis is Johnson's chapter on reconstitution planning during peacetime. He emphasizes how it is critical that commanders incorporate reconstitution into their operation plans (OPLANs). He provides as an example the reconstitution of a tank battalion from the 1st Armored Division during a REFORGER exercise. Additionally he includes a discussion of V (US) Corps Exercise Caravan Guard in 1988. This exercise was a large-scale regeneration exercise involving the 3d COSCOM from V Corps.

The second War College individual study project that contributed to this thesis was written by James C. Hinebaugh, Jr., in 1988. His monograph, entitled "Reconstitution--Winning Beyond the First Battle," emphasizes the importance of executing reconstitution at the lowest level possible. He provides suggestions on how the reconstitution process could be improved, and proposes that the Army is not well-prepared to sustain a fight beyond the first battle.

Hinebaugh's project was influential in the development of this thesis because it was written from a similar perspective. Hinebaugh wrote his paper in one of the final years of the Cold War. He recognized that the highly-resourced modernization programs and healthy defense budgets that characterized the eighties were on the decline as the strategic environment began to change. He addresses reconstitution from the standpoint that battles are likely to arise during a "short or no-warning scenario."¹⁴ This idea can be likened to the current Army force projection operations.

In 1987, Curtis N. Marsh III wrote an article on reconstitution which was published in Military Review. In addition to providing an overview on the Army's operational concept of reconstitution, Marsh places strong emphasis on the importance of planning and training for reconstitution. He suggests reconstitution should be included in unit standing operating procedures (SOPs), and in Army Training and Evaluation Programs (ARTEPs).

Marsh also proposes that reconstitution is such an important aspect of an overall operation, that it should be addressed in the "Concept of Operation" (paragraph 3, Execution) in a unit's OPLAN or operation order (OPORD). Like Hinebaugh and Johnson, Marsh states that the G3 must become the central figure in planning reconstitution and that the personnel and logistics officers (G1/G4) must not do reconstitution planning in isolation during the staff estimate process.

The primary contribution of Marsh's article to this thesis was that it added to an overall understanding of reconstitution in a historical context. Concerning the Battle of Schmidt, Marsh wrote:

As the Army pondered reconstitution, the lessons learned about the 28th Infantry Division resurfaced. What was this lesson? Other divisions were honed, hardened, cohesive fighting organizations. The 28th Infantry Division had become a large collection of people and equipment. This showed that reconstitution is more than personnel replacement and equipment issue.¹⁵

In 1986, Charles W. Horner wrote an article for Army Logistician entitled "Reconstituting a Combat Force." Horner's article reviews actions taken by the 3d Support Command (SUPCOM) during the 1985 REFORGER Exercise Central Guardian in the Federal Republic of Germany. During the exercise, V (US) Corps was required to reconstitute the 11th Armored Cavalry Regiment (ACR). Horner notes that the exercise served to test the operational concept for reconstitution which was reflected in TRADOC PAM 525-51.¹⁶

A significant contribution of Horner's article is that it provides details of the process required to restore the combat effectiveness of a brigade-sized heavy combat unit within a mature theater. Not only does he summarize reconstitution ad hoc organizations and activities, but he provides valuable lessons learned from the exercise for other Army organizations to study.¹⁷

Horner's article was a key resource for the completion of this thesis. His article focuses on the regeneration of a brigade-sized mechanized unit at the height of the Cold War under AirLand Battle doctrine. It provides a standard by which the contingency operation scenario developed in Chapter Six of this thesis is evaluated for comparison.

Literature Assessment

The overall assessment of the literature is that there is a significant amount of literature regarding reconstitution doctrine, tactics, techniques and procedures. However the amount of literature on historical examples is limited. There is sufficient literature beyond the scope of this thesis regarding German, Soviet, and Israeli examples of reconstitution, but there is little material on US experiences with reconstitution except for the Battle of Schmidt. Although there have been other instances when some type of reconstitution was needed to restore the combat effectiveness of US units in WWII, Korea and Vietnam, there is little other documentation that deals specifically with reconstitution.

There has been interest in the topic of reconstitution doctrine since 1985 according to the literature which was surveyed. As the Army produced official documents on the subject of reconstitution, more and more authors analyzed the subject. Although it appears that the advent of AirLand Battle doctrine served as the impetus which prompted the Army senior leadership to request studies such as the BDM and CSI reports, the origin of this recent interest is not clear. Nonetheless, reconstitution is clearly

a current topic of concern among leaders in the Army. Now that the Army has put reconstitution into a doctrinal field manual, the subject should gain even more interest.

Operation Desert Shield is unique in that actual large-scale reconstitution did not take place. The usefulness of Operation Desert Shield as an example is that it serves to illuminate the planning considerations and anticipation of reconstitution associated with recent operations. However, there is little published material that could be categorized under reconstitution concerning this operation.

CHAPTER THREE

METHODOLOGY

General

The methodology of this thesis had two fundamental objectives. First, the methodology sought to answer, in a systematic manner, the primary and secondary research questions regarding warfighting and reconstitution doctrine of the past and present. Second, the methodology of this study served as a vehicle to prove or disprove the hypothesis that the Army will conduct reconstitution differently in the nineties than it did during the Cold War.

Methodology Overview

The methodology of this research effort proceeded in five phases. The first phase consisted of the development of a model reflecting an interpretation of how Army doctrine is developed and validated. This phase sought to determine the relationship between warfighting doctrine and reconstitution doctrine with due consideration for the impact of history and experience on the formulation of each. The second phase included a doctrinal review of US Army warfighting doctrine. Phase III was a review of both Army reconstitution doctrine and historical examples of reconstitution since WWII. The fourth phase of the research involved the creation of a scenario representative of likely combat operations for Army forces in the nineties. The fifth and final phase of the research methodology was to evaluate how the Army is likely to conduct reconstitution within the confines of the scenario and draw conclusions as to how the Army might

conduct reconstitution in the 1990s. A more detailed description of each phase follows below.

Phase I: The Doctrinal Development and Validation Model

To give structure to the methodology of this thesis, a model was developed to show the close relationship between changes in the strategic environment, warfighting doctrine, and reconstitution doctrine. The model, entitled the Doctrinal Development and Validation Model (DDVM), served as a framework for this study and is presented at Figure 1. Consistent with the scope of this thesis, the model is meant to be reflective of the period from WWII to the present. The model suggests that when significant changes in the strategic environment occur, the US Army evaluates and potentially changes its warfighting doctrine. After warfighting doctrine is evaluated for possible change, all other subordinate Army doctrine, to include reconstitution doctrine must be similarly evaluated for potential change. The doctrinal evaluation process is continuous. It considers the impact of history, and in particular, past wars in determining whether changes in doctrine are necessary in light of changes in the strategic environment.

The DDVM also shows current reconstitution doctrine must go through a validation process. It is critical to note here that current reconstitution doctrine is based on the AirLand Battle doctrine as reflected in the 1986 version of FM 100-5, Operations. In the absence of an actual combat scenario to validate current reconstitution doctrine, the model suggests a simulated scenario can be used to represent Army operations in the nineties. Following actual or simulated Army operations, the model shows current reconstitution doctrine is either validated or invalidated. If validated, then it is only validated for the given scenario. If the current reconstitution doctrine is invalidated, then the hypothesis for this thesis is correct: the Army will conduct reconstitution differently in the nineties than it planned for during the Cold War.

Although the DDVM suggests further evaluation of change in the strategic environment is necessary even after the doctrine validation process, that is beyond the scope of this thesis. The model also shows that the validation process is an iterating one in which many scenarios should be run. This thesis will only consider one scenario in an effort to keep the scope reasonable.

Phase II: Doctrinal Review

Following the methodology outlined in the DDVM, the doctrinal review traced the development of Army warfighting doctrine from WWII to the present. This doctrinal review was necessary as a fundamental step in determining the relationship between changes in the strategic environment, warfighting doctrine, and reconstitution doctrine. The doctrinal review is presented in Chapter Four and explores many of the factors which caused changes in the strategic environment since 1941 and how Army warfighting doctrine has evolved in light of those changes.

Phase III: Reconstitution Doctrinal and Historical Review

Phase III consisted of two parts. In the first part, the research evaluated past and present reconstitution doctrine. Since the Army did not have a formal reconstitution doctrine until 1992, this part of the research included a review of literature concerning related reconstitution operational concepts and practices from WWII to the present. Concepts such as replacement operations, cross-leveling, redistribution, and unit training following combat losses were evaluated for relevance to current reconstitution doctrine.

The Army's current reconstitution doctrine was then reviewed as found in the 1992 publication of FM 100-9, Reconstitution. Again it is important to note that this manual is linked to outgoing edition of FM 100-5, published in 1986, and not on the incoming edition of the Army's keystone warfighting manual.

Phase III also included a review of historical examples of reconstitution. Examples were divided into two categories: (1) combat-related examples and (2) combat-training examples. Although the level of detail available from historical literature greatly varies from one example to another, the examples reflect a diversity of reconstitution practices that shed insight into how the Army might conduct reconstitution in the 1990s.

Not all of the examples reflect actual execution of reconstitution operations. For example, the focus of the analysis for Operation Desert Shield is on the planning considerations that took place before and during the combat operations of Operation Desert Storm. The specific examples which were evaluated, by category, are listed below:

Combat-Related Examples:

1. The Battle of Schmidt, 1944
2. The Battle of Ia Drang Valley, 1965
3. Operation Desert Shield, 1991

Combat-Training Example: REFORGER, 1985

To present the results of the research from Phase III, both the review of reconstitution doctrine and historical reconstitution examples were presented in the same chapter. These results have been blended together in chronological order in Chapter Five so as to reflect a logical progression of events.

Phase IV: Scenario Development

During the fifth phase of the research, a scenario was developed to test the hypothesis. The scenario is based on numerous possible operations highlighted in the 1993 version of FM 100-5. The scenario is notional and reflects similarities of contingency operation scenarios formulated by the faculty of the US Army Command

and General Staff College and the Combat Training Centers. The scenario is a hybrid of numerous examples and also reflects aspects of historical US military operations such as Power Pack, Urgent Fury, and Just Cause.

The scenario includes a brief summary of events that lead up to the decision by US National Command Authorities (NCA) to deploy US forces in response to a regional threat to national security interests. The scenario can be considered a contingency operation and involves joint, combined, and interagency components.

The operation involves not only conventional combat operations, but also operations other than war. These operations include support of counterinsurgency, counterdrug operations, show of force, security assistance, and peacekeeping. Conventional operations include elements of both defense and offense. The military operations in the scenario take place under the control of a corps-sized Joint Task Force (JTF) commander subordinate to a unified commander.

The scenario takes place on an island with a shared, disputed border. The Army maneuver combat forces are predominantly light infantry and airborne infantry with some heavy (mechanized and armor) augmentation. The focus of the scenario is on the operations of a light infantry brigade task force and its supporting heavy battalion task force under operational control (OPCON). The scenario places the brigade task force in a situation which requires the JTF commander to determine reconstitution options in order to restore the combat power of the attrited brigade task force and JTF.

Phase V: Scenario Analysis and Conclusions

The final phase of the methodology sought to determine how the Army is likely to conduct reconstitution operations in the nineties under circumstances similar to those in the notional scenario developed in Phase IV. Using a process called war

gaming, the campaign plan of the notional scenario was executed. Student Text (ST)

100-9. The Command Estimate Process describes war gaming as:

A conscious attempt to visualize the flow of a battle, given friendly strengths and dispositions, enemy assets and possible courses of action, and a set piece of ground. It attempts to foresee the action, reaction, and counteraction dynamics of a battle.¹

During the war gaming process, significant events and issues were recorded on a synchronization matrix similar to that outlined in ST 100-9.² Reconstitution options for the JTF commander were determined and analyzed in comparison to current reconstitution doctrine. Results of the course of action comparison were recorded on a decision matrix (Figure 10).³

Based on a detailed analysis of the reconstitution options that resulted from the notional scenario, conclusions were drawn regarding whether the Army will conduct reconstitution differently in the nineties than during the Cold War. This final step of the methodology addressed the hypothesis and answered the primary research question.

What follows in the remainder of this thesis is the report of the research efforts. The results of the research are organized into chapters which reflect the logical relationships depicted in the DDVM. The following chapters will present the impact of changes in the strategic environment on warfighting doctrine; the impact of changes in warfighting doctrine on reconstitution doctrine; a force projection scenario; and analysis, conclusions, and recommendations based on all aspects of the research.

CHAPTER FOUR

DOCTRINAL REVIEW

Doctrine is the collective body of thinking and writing that describes how a military organization expects to fight. It identifies the mission, assesses the enemy's capabilities, and suggests how the assets available should be orchestrated and employed to attain the desired ends. An effective doctrine addresses all three levels of warfare--the strategic, the operational, and tactical--and links them together. Doctrine supports strategy by assuring that military operations will further national goals.¹

Christopher R. Gabel, "Doctrine"

General

As suggested in Chapter One, an attempt to answer the primary research question of whether or not the Army will conduct battlefield reconstitution differently in the 1990s, raises several secondary questions. This chapter will answer the following secondary research questions:

1. What was the Army's previous warfighting doctrine during World War II and the Cold War?
2. What is the Army's current warfighting doctrine for the 1990s?
3. What are the principal differences between the Army's past warfighting doctrine and current warfighting doctrine?

As previously discussed, the first phase of the methodology of this thesis was the construction of the DDVM (Figure 1). The DDVM suggests that changes in the strategic environment cause at least an evaluation and sometimes even change in US

Army warfighting doctrine. The second phase of the research methodology was to historically review US Army warfighting doctrine from WWII to the present. This chapter reports the results of the second phase of the research methodology.

The historical review that follows was a prerequisite to understanding the eventual impact of changes in the strategic environment on Army warfighting and reconstitution doctrine. Understanding this relationship of change was essential before attempting to project how the Army might conduct reconstitution in the nineties under the Army's emerging warfighting doctrine. The impact of changes in Army warfighting doctrine on Army reconstitution doctrine will be discussed in Chapter Five, Reconstitution Doctrinal and Historical Review.

The doctrinal review that follows below does not attempt to cover every aspect of the Army's past and present doctrine. It is the intent of this chapter to provide a broad overview of those key aspects of doctrine that reflect changes in the strategic environment. In an essay on doctrine written for CSI, Christopher R. Gabel wrote, "changes in national policy, shifting balance of power, and deployment of new technology should always trigger a reassessment of doctrine."²

Warfighting Doctrine

Indeed, the evolution of tactical doctrine illustrates that the great value of doctrine is less the final answers it provides than the impetus it creates toward developing innovative and creative solutions for tactical problems on future battlefields.³

WWII Doctrine

From 1941-1945, the Army's attention was divided primarily between North Africa, Europe, and the Pacific. During this period there was no key term that neatly

represented the tactical doctrine in such a way as "Active Defense" did in the 1970s and "AirLand Battle (ALB)" did in the 1980s. Many "changes in American doctrine and organization occurred in the middle of the war" and reflected the type of warfare necessary to produce winning results in each theater⁴. Gabel noted that WWII doctrine reflected "the way things are" rather than "the way things should be."⁵ He said, "to find the Army's doctrine for WWII, you should look to the 1944 edition of FM 100-5, not the 1939 version."⁶ US tactical combat operations at the outset of America's involvement in WWII complemented a broad American military strategy of annihilation.⁷

It was in World War II that the Army began to develop a warfighting doctrine which integrated all available combat power in order to create decisive victories. Using combat as the testing ground for developing and refining tactical doctrine, the Army began to set the stage for what would forty years later, become AirLand Battle doctrine.

World War II represented the end of pure ground operations. Mechanized attack required air superiority and close air support, airborne landings required close coordination between air transport and ground forces, and amphibious landings developed as the most sophisticated and complicated form of combined arms and joint operations. Such joint service interaction was not achieved without operational errors and doctrinal arguments, but by the end of the war ground commanders had reached a temporary working compromise with the other services on most questions.⁸

An example of how American ground forces operated in North Africa during WWII was when General Dwight D. Eisenhower led the Allied amphibious and airborne invasion of Morocco and Algeria during Operation Torch in 1943. After initial success in an unfamiliar and austere desert environment, and against token resistance by the Vichy French forces, the allies established a firm base from which they would supply the eastward offensive toward Tunisia.⁹

However, in February 1943, Rommel launched a spoiling offensive with "an armored raid toward Kasserine Pass which mauled elements of the inexperienced U.S. II

Corps."¹⁰ Russell F. Weigley says in his book The American Way of War, that this "hoped for thrust immediately into Tunis faltered just short of its goal for lack of strength and logistical support."¹¹ Two months later, when Lieutenant General George S. Patton, Jr. assumed command of US II Corps, allied forces were finally victorious in North Africa, but not before suffering 75,000 casualties.¹² In February 1943 the Army was not prepared to carry out the strategy of annihilation due to a lack of training and inability to logically support a war over extended lines of communication.

European ground operations were characterized by mobile warfare, mass, concentration and counterattacks following the Normandy invasion during Operation Overlord in June 1944.¹³ Large armored and motorized infantry formations moved rapidly across France consuming massive quantities of supplies and necessitating the establishment of long, protected lines of communication.

The doctrine used in the European Theater,

was created in North Africa, developed in Italy and polished after the Normandy invasion. The actual procedures employed by the ground forces, however, were often ad hoc and varied widely from unit to unit.¹⁴

Lieutenant General Leslie J. McNair was responsible for the training and organization of Army Ground Forces and was one of the designers of the triangular division concept that lasted well past the war.¹⁵ His intent was that rifle divisions would be relatively light and would only have enough organic transportation to "shuttle necessary supplies and ammunition to the regiments during a twenty-four hour period."¹⁶ However,

A typical U.S. Infantry division in France during 1944 normally had attached battalions of tanks, tank destroyers, antiaircraft automatic weapons, and corps engineers. In some cases the division also had attached 4.2-inch mortars, transportation, and logistical support from the pools at corps and field army level.¹⁷

Perhaps not as light as McNair may have envisioned, the typical Infantry division was well on its way of becoming and fighting as a combined arms organization.

Unfortunately, the integration of air support was generally poor throughout the war. The US Army Air Forces (AAF) was intent on strategic bombing and believed that close air support of ground forces was "uneconomical, inefficient and unimportant use for air power."¹⁸ The incompatibility of communications equipment and frequencies between infantry, armored and AAF fighters only exacerbated the problem.¹⁹

In the Pacific theater, an entirely different war was taking place and "doctrine differed from that employed in the European theater."²⁰ Whereas infantry units in Europe were incorporated into a combined arms and mobile warfare with armored support, infantry units in the jungles of the Pacific were fighting in close combat against a similarly immobile enemy.

In these battles of attrition, the Army eventually learned the importance of using all available firepower in a combined arms effort. However, that lesson was learned the hard way. For example, in 1942, "General Douglas MacArthur committed the 32d Infantry Division to the battle in Papua with no artillery and only a few mortars" because of the misconception that "artillery would be ineffective in the jungle."²¹ Additionally, the application of tactical doctrine in the Pacific developed as a result of terrain, weather and communication problems that hampered effective use of close air support on many occasions.²²

Overall, warfighting doctrine during WWII was a product of both written doctrine and practical experience. The 1941 Field Service Regulations served as a start point for Army operations during the war. However, over the course of four years of fighting in three distinctly different theaters, the Army changed the way it conducted operations to adapt to particular environment in which it was fighting.

1945-1950 Doctrine

In the years between World War II and Korea, the Army carefully considered its tactical doctrine, but its methods remained essentially those of World War II. While the postwar strategic environment encouraged the reconsideration of doctrine, it also made the formulation of doctrine especially difficult.²³

In 1979, the Combat Studies Institute published a document written by Robert A. Doughty entitled The Evolution of US Army Tactical Doctrine, 1946-76. Doughty suggests that following WWII, there was a decline in interest in the US regarding tactical warfighting doctrine. He noted that the US had an atomic monopoly that led many Americans to even question the need for large ground forces.²⁴ Additionally, the Air force had a monopoly over the delivery means for atomic weapons and "the Army's potential contribution seemed much less than in the past, and questions concerning its tactical doctrine seemed less important."²⁵

However, the Army maintained a keen interest in its warfighting doctrine. As the DDVM suggests, actual combat operations provide a premier, though potentially costly, proving ground for validating current doctrine.

The Army was intent on learning lessons from WWII and determining how the changes in the strategic environment at the close of the war would affect doctrine for future combat. Because the Army felt threatened to justify its very existence and role in the post war years, "the Army carefully reviewed its experience in the recent war through a series of conferences designed to improve its weapons, tactics and organization."²⁶

The Army established the War Department Board of 1946 on Army equipment under General Joseph W. Stilwell. The board concluded:

The next war might open with a surprise attack which would be followed by "retaliation with bombing, long range missiles, and biological weapons." Yet the ultimate victory could only be achieved by "occupation of the hostile territory."²⁷

This board and the other post war conferences maintained a consistent assumption that the during the next war, "ground combat would continue to be nonatomic," and as a result, the "Army did not change its doctrine to reflect an atomic battlefield."²⁸ This theme was evident in the post war publication in 1949 of FM 100-5, Field Service Regulations, Operations.

As the Cold War emerged and threat of Soviet invasion of Europe increased, Army doctrine focused less on being able to respond to worldwide contingencies and more on "a European-type battlefield reminiscent of World War II."²⁹

Although a key lesson in WWII was that air support must be closely integrated during ground combat when available, many of the same controversies between the Army and Air Force over how air power should be employed remained after the war. However, "important progress had been made in establishing a clear doctrine for tactical support of ground troops" even though the doctrine reflected a compromise in the position of the Army.³⁰ Although the helicopter was now a part of the warfighting inventory for the Army, its utility as a combat multiplier was restricted to administrative, resupply and rescue operations.³¹

The role of the tank and tank destroyer was also debated. Although the Army continued to profess that armored forces were best used in support of the infantry, the Stilwell board concluded that "the best antitank weapon is a better tank."³² It was generally agreed upon that tank destroyers were relatively ineffective compared to the tank because of the lack of cross country mobility and insufficient penetrating power of the 57-mm projectile.³³ When the General Board of the European Theater concluded that "the uniformly better performance of infantry in any operation, when closely supported

by tanks, is probably the biggest single tactical lesson of the European campaign," the Army added an organic tank battalion to each infantry division and a tank company to each regiment.³⁴

Regarding maneuver, the 1949 Field Service Regulations focused on operations likely in a conventional European scenario. Offensive maneuver stressed envelopment over penetration, although both were viable alternatives when destruction of a particular enemy force was the objective. However, the theme of the 1949 Field Service Regulations was predominantly defense and focused on maintaining control of terrain rather than destroying the enemy.³⁵ Although not given a specific descriptive phrase, the concept for the defense was similar to the "area defense" as described in ALB doctrine. Large mobile and usually armored reserves would stand by as a relatively immobile infantry force would conduct the main fight following a covering force battle.³⁶

Doughty captures the essence of the tactical doctrine of the era following WWII when he says the following:

Notwithstanding the atomic bomb and the intense postwar studies of the Army's tactics, equipment and organizations, the doctrine for the employment of American tactical units in 1950 effectively remained that of World War II.³⁷

Korea War Doctrine

Despite the increased emphasis on the advantages of mobility, firepower and shock effect of armored forces that led to an increase in the presence of tank units, the Army experienced a significant reduction in its overall size following WWII. Consequently, units were maintained at less than 100 percent strength and "skeltonized." Infantry regiments were reduced from three to two battalions, and equipment and soldier readiness were at dangerously low levels.³⁸

The unpreparedness of the Army was evident at the outset of the Korean War as evidenced by the defeat of Task Force Smith in the first battle involving US forces in 1950. Peacetime drafts in the late 1940s had led to the accession of many "disgruntled, indifferent or even hostile soldiers" who did not even receive specialty training following a reduced basic training period.³⁹

Much of the difficulty experienced by the Army can be attributed to the unpreparedness of the Army to fight a "limited" war in an environment other than Europe. The Army doctrine prior to Korea was based on a "global" war assumption on the European continent. When the Army had to adjust its doctrine due to the mountainous terrain in Korea, it quickly discovered that the advantages of armored and mechanized forces in such terrain were indeed limited.⁴⁰

Additionally, the 1949 Field Service Regulations heavily emphasized a relatively static defense in anticipation of defending in Europe against the Soviets. What US ground forces experienced during the first half of the Korean War was "relatively mobile operations as the armies swept up and down Korea." Difficulties experienced by this change in doctrine first occurred as the United Nations (UN) ground forces delayed south to establish the Pusan perimeter. Then following the Inchon landings, the Army found itself in a mobile offense enroute to the Yalu River. When the Chinese launched a massive counteroffensive in November 1950, UN ground forces were again forced to delay south of Seoul. By April 1951, UN forces were able to push the Chinese back to the 38th parallel only to meet another Chinese counteroffensive that eventually stalled a month later.⁴¹

For the remainder of the war, the fighting was relatively static, much the same as American forces had experienced in World War I. The Chinese were often able to exploit weakness in the defensive lines of US units. They often maneuvered using envelopment against exposed flanks of US forces.⁴²

Despite the apparent failure of US doctrine to be universally applied in a "limited" war scenario, there were many other lessons that the Army learned and would incorporate into doctrine and tactics. The Army learned important, and often costly lessons about fighting during periods of limited visibility. Also, the Army gained a new appreciation for the effective use of cover and concealment, and the importance of flank security in both the offense and defense.⁴³

Despite significant shortages in artillery ammunition, the effectiveness of American artillery units to mass and rapidly respond to the needs of ground units was clearly evident.⁴⁴ The Army also gained an appreciation for the use of armored personnel carriers for carrying supplies and soldiers around on the battlefield. Just as the Army had discovered in WWII, close integration of air support with ground forces was a tremendous combat multiplier, despite the continuing inter-service dispute over the role of air power.

Doughty notes that "when the Korean War ended in July 1953, the official position was that no real changes had occurred or had been necessary during the war."⁴⁵ However, he concludes that there were in fact changes in Army doctrine, especially in the way the Army employed firepower in massive amounts.⁴⁶ Unfortunately the focus on firepower led to a decrease in mobility and maneuver as the ground forces reverted back to a familiar style of attrition warfare.

The Atomic Era, Counterinsurgency and Vietnam War Doctrine

Again, as the DDVM suggests, the Army continued its evaluation of warfighting doctrine following the end of the Korean War. Changes in the strategic environment prompted a reevaluation of Army doctrine. The Cold War was in full swing and the threat of atomic warfare with the Soviet Union was ever present. The Army,

intensified its study of tactics, organization and equipment for the atomic battlefield, especially after the Eisenhower administration began placing greater emphasis on the employment of atomic weapons rather than expensive manpower.⁴⁷

However, in much the same way as following WWII, doctrine did not drastically change following Korea. The possibility of Army forces fighting in a nuclear, chemical, or biological (NBC) environment was clearly evident in the 1954 Field Service Regulations and supported the strategic concept of "massive retaliation."⁴⁸

Yet basic offensive and defensive doctrine varied little from the 1949 version of Army doctrine.⁴⁹ The potential effect of NBC weapons was emphasized in the offensive doctrine as being able to "reinforce the effects of the attack."⁵⁰

The 1954 doctrinal manual described two types of defense. The first type was the position defense, reminiscent of the 1949 defense. The second type of defense was the mobile defense. This new defensive doctrine envisioned the majority of the fighting force positioned rearward. This highly mobile force would attack into pockets formed when a smaller forward force canalized the enemy into a place of choosing by friendly forces. Whereas the infantry division was better suited to fight a position defense, the armored division was the ideal force to be employed in a mobile defense.⁵¹

As was true during the previous ten years, the possibility of war in Europe dominated doctrinal development. However, that was to change when General Maxwell D. Taylor announced plans to implement the "pentomic" division concept. Taylor implemented a major change in Army organization because of a recognition that the Army must be:

capable of participating successfully in any type of war, in any area in which we may be called upon to engage, ranging from sustained operations with major forces to smaller scale operations in varied terrain.⁵²

In a departure from McNair's concept of the triangular division, the pentomic division was to fight with five battle groups, each consisting of five rifle companies.

Battle groups were "relatively self-contained and semi-independent units."⁵³ A result of this change was a paradigm shift from the narrowly focused static European defense to a broad range of utility for the Army, any place and anywhere. However, the most likely battlefield scenario expected for employment of the pentomic division was still nuclear.

The Army's heavy emphasis on strategic mobility unfortunately lagged behind US capability to actually deploy using available strategic lift assets. Whereas the Army had been extremely slow in making changes to doctrine since WWII, the rapid change in doctrine caused by the pentomic division concept "illustrates the dangers of a strategic concept dictating tactical doctrine without consideration of the technical and intellectual capability to follow the doctrine."⁵⁴

In 1961, the Chief of Staff of the Army, General George H. Decker received presidential approval to implement another major reorganization of the Army. Under the Reorganization Objectives Army Division (ROAD) 1965 concept, the Army forces was expected to fight in either nuclear or non-nuclear environments.⁵⁵

The most significant changes in doctrine under the ROAD concept were in the areas of mobility and maneuver. Units had an "increased ability; to mass and also to disperse rapidly."⁵⁶ Although there was an increase in emphasis in the early sixties on destruction of enemy forces through offensive action, retention of terrain through a strong defense remained the predominant doctrinal ideology from the end of WWII until the mid sixties.⁵⁷

Although Army experiences in Korea raised interest regarding "limited" war, interest in counterinsurgency warfare declined throughout the 1950s when the possibility of nuclear war was predominant. However in January 1961, Nikita Krushchev openly stated that "wars of liberation" were the focus of Soviet thought rather than fighting global or limited war.⁵⁸ President Kennedy responded by taking personal interest in the status of Army counterinsurgency doctrine and Special Forces. Kennedy's interest

prompted the Army to place a greater emphasis on counterinsurgency and guerrilla operations in third world countries.⁵⁹ When the number of US Army advisors in South Vietnam was increased at the request of the South Vietnam government in 1961, the Army began to learn valuable lessons about the nature of counterinsurgency operations.⁶⁰

One of the most significant changes to US Army doctrine occurred due to the helicopter. The Army formed the 11th Air Assault Division (Test) in February 1963 at Fort Benning, Georgia. After two years of intensive training and development of airmobile doctrine, the division activated in July 1965 as the 1st Cavalry Division (Airmobile).⁶¹ The tactical doctrine employed by the 1st Cavalry Division was not at all perfected by the time it was deployed to Vietnam and engaged in combat operations. However, the airmobility concept would dominate Army operations during the first part of the US involvement in the second Indo-China War.

As US involvement in Vietnam increased, the Army began to focus more on fighting under conventional doctrine rather than counterinsurgency or counterguerrilla doctrine. Significant changes in small units tactics such as "search and destroy" and "hammer and anvil" tactics would develop, but the Army was actually fighting and winning a conventional war in a non-nuclear environment.⁶² Conventional operations supported pacification efforts by providing security and creating an environment in which the pacification efforts could flourish.⁶³

Fire support from artillery and air support also impacted on the development of doctrine during Vietnam. Ground commanders became reliant on artillery support and often would fear to operate beyond the range of 105mm howitzers positioned in secure fire bases.⁶⁴ When available, air support from Air Force fighters and bombers and Army aerial gunships were especially effective to the ground force commanders. The Army learned valuable lessons regarding the tactical employment of air support assets and

learned to overcome many of the communication difficulties experienced early in the war.⁶⁵

Towards the later part of the war, leadership and morale problems associated with fighting a prolonged infantry conflict without the consent of the American public, began to take a toll on Army forces. The Army's doctrinal focus had shifted during the war from the defense of Europe in a nuclear environment to the attrition of an inferior enemy through massive conventional firepower.⁶⁶

Active Defense and AirLand Battle Doctrine, 1976-1993

An army's past, present and vision of its future always influence doctrine because each is an inherent part of the intellectual process by which armies develop doctrine. These truths are evident in the U.S. Army's formulation of the 1976 edition of FM 100-5.⁶⁷

The implication made by the DDVM that history shapes warfighting doctrine was readily apparent following the Vietnam War. Even before the fall of Saigon, the Army began a new period of reflection as to the status of its current warfighting doctrine as embodied in the 1968 version of the FM 100-5, Operations of Army Forces in the Field. The result of this introspective evaluation was a change in doctrine reminiscent of that which occurred after WWII. The TRADOC Commander, General William E. DePuy, proposed the concept of "Active Defense" with the publication of the 1976 version of FM 100-5, Operations.

Under DePuy's Active Defense doctrine, the Army once again focused on the European battlefield after a decade of preparing to counter "wars of liberation" at the expense of readiness and training of forward-deployed Army forces in Europe.⁶⁸ The

nuclear-conventional battlefield was again the centerpiece of the Army's focus rather than counterinsurgency.

DePuy stressed that the outcome of a war in Europe against the Soviet Union would likely depend upon the outcome of the first battle. Since Soviet military forces grossly outnumbered US military forces in 1976, DePuy emphasized the Army must be prepared to fight outnumbered and still win.⁶⁹ Additionally, the Army would no longer be able to afford the luxury of trading space for time, but would have to concentrate its combat power in a fluid, aggressive defense at a decisive point on the battlefield immediately upon commencement of hostilities.⁷⁰

A major criticism's of DePuy's doctrine was that it was a prescriptive manual that dictated how to fight as opposed to being a descriptive manual that would serve to guide Army operations.⁷¹ The manual was also the product primarily of DePuy and a small group of hand-picked doctrine writers and subordinate general officers rather than a product of the Army leadership at large. Another major criticism of Active Defense doctrine was it neglected the operational level of war.⁷² This criticism is understandable in that the doctrine was published shortly after the end of the Vietnam War during which the operational level of war was virtually absent.⁷³ Additionally, the defensive nature of the doctrine was not appealing amongst Army leaders who possessed an offensive spirit in light of technological advances that increased the mobility, maneuverability, firepower and lethality of modern conventional weapon systems.⁷⁴

Despite the shortcomings of Active Defense doctrine, its impact on the Army has been lasting. It caused the Army to talk about doctrine and how to fight the next war, and as a result, produced realistic training and increased unit readiness.⁷⁵ This newfound enthusiasm in warfighting doctrine would serve as the impetus for the creation of ALB doctrine that would see the Army through the completion of the Cold War.

In 1982, DePuy's successor as TRADOC Commander, General Donn A. Starry provided the leadership that led to a revision of the unpopular Active Defense doctrine. The new doctrine, ALB, was built upon the doctrinal foundation laid in the 1976 version, but addressed many of its shortcomings. Most significantly, ALB doctrine "returned the offensive to its place of primacy in American doctrine."⁷⁶ It also stressed that doctrine was to be used as a guide for judgement rather than a prescriptive formula for how to fight. In response to criticism of Active Defense for its emphasis on the mechanics of war and force ratios, and failure to adequately address the human dimension of war, "Starry made leadership, morale, and initiative key concepts in AirLand Battle."⁷⁷

Whereas Active Defense doctrine failed to adequately address the operational level of war, ALB recognized the importance of the operational level of war as the necessary connection linking strategic objectives and tactical objectives. The multi-service (joint) nature of modern combat was also emphasized along with depth of the modern battlefield in time and space. The tenets of agility, initiative, depth, and synchronization remained even after the 1986 revision of FM 100-5, and formed the foundation for the 1993 version as well.

The 1986 version of warfighting doctrine was that which guided the actions of Army forces in Operation Desert Storm. It mostly reaffirmed the offensive spirit of the 1982 version of ALB. However, "it reflect[ed] the lessons learned since that time from combat operations, teachings, exercises, wargames, and comments from the Army in the field."⁷⁸ The linear nature of the European battlefield framework was still predominant in 1986 and the complexity of fighting in an NBC environment was again stressed as in the earlier years of the Cold War. However, a sharpening of focus on contingency operations would provide a framework for operations Just Cause, Desert Shield, and Desert Storm.

Army Operations Doctrine for the 1990s

While reaffirming the basic principles and tenets of AirLand Battle doctrine, the updated version will reflect a wider coverage of global commitments, the non-linear nature of future battlefields, and greater emphasis on power projection operations from a CONUS base.⁷⁹

ALB doctrine was sound in the context of US-Soviet conflict during the Cold War. However, when the Soviet Union ceased to exist and the Warsaw Pact threat changed shape in the early nineties, the Army senior leadership recognized "recent changes in the strategic environment dictate that sound warfighting principles embedded in ALB doctrine be updated and expanded to meet new challenges."⁸⁰

The 1993 version of FM 100-5 emerged with many similarities compared to the 1986 version. Still present were discussions of the complexity of the modern battlefield. Considerations for planning and executing offensive operations and defensive operations only varied slightly. The three levels of war, strategic, operational, and tactical, were still present as were discussions of close, deep and rear operations.

However, unlike the 1986 version that merely restated much of the 1982 doctrine, what emerged in 1993 was a major overhaul in light of a changed strategic environment. Conventional operations in a joint, combined or interagency environment were stressed as the norm.⁸¹ New concepts emerged such as battle space, battle command, total mission awareness, and strategic end state. Operations other than war were introduced as part of routine Army operations instead of a subset of what was previously known as low intensity conflict.⁸²

Many themes which were woven into the document were either new or received greater emphasis. For example, it was made readily apparent that the Army of the nineties was no longer a forward-deployed army, but a smaller force projection army

that was predominantly CONUS-based.⁸³ Under the new doctrine, all Army units, must expect to operate in a joint, combined, or interagency environment either in support of conventional combat or in support of operations other than war. Versatility was added as a new tenet of Army operations and,

implies a capacity to be multifunctional, to operate across regions throughout the full range of military operations, and to perform at the tactical, operational, and strategic levels.⁸⁴

The role of the Army as an instrument of national military power was redefined. Army participation in a domestic support role was as likely as participation in an international role. The linear nature of the Cold War European battlefield which had dominated Army doctrine for fifty years was gone.

The new warfighting doctrine stressed that the Army of the 1990s must be able to respond to regional crises against a different type of threat than the Warsaw Pact. In its own description of the role of doctrine, the 1993 version states:

Unlike the Cold War--when threats were measurable and, to some degree, predictable--Army forces today are likely to encounter conditions of greater ambiguity and uncertainty. Doctrine must be able to accommodate this wider variety of threats. In so doing, the Army is prepared to respond to these worldwide strategic challenges across the full range of possible operations as part of a joint team.⁸⁵

Just as the DDVM suggests, the changes in the strategic environment that occurred with the end of the Cold War, along with recent combat operations during Operation Desert Storm, caused an evaluation of warfighting doctrine that led to the most sweeping change of Army doctrine since WWII. What was not clear upon completion of doctrinal drafting process was the extent of the impact that these sweeping changes would have on all other subordinate doctrine.

When writing about the 1976 version of FM 100-5, Paul H. Herbert wrote in Deciding What has to be Done: General DePuy and the 1976 Edition of FM 100-5, Operations:

FM 100-5 was the "capstone" manual to an entire family of doctrinal manuals that constituted a wholesale replacement of the Army's then, current doctrine. It attempted to present an over-arching concept of warfare from which all other manuals dealing with separate parts of the Army would follow.⁸⁶

Similarly, the 1993 version of FM 100-5 presents numerous significant changes in Army operations doctrine for the 1990s that will likely cause a complete review of current Army doctrinal publications to ensure consistency.

CHAPTER FIVE

RECONSTITUTION DOCTRINAL AND HISTORICAL REVIEW

In the aftermath of the Cold War, the sources of doctrine have again evolved to an extent that necessitates a revision of Army doctrine.¹

FM 100-5, Operations (1993)

General

In keeping with the methodology of this study it is necessary to investigate the development of reconstitution doctrine and provide some historical examples of US Army tactical reconstitution practices. The DDVM shows that when changes in warfighting doctrine occur as a result of changes in the strategic environment, an evaluation of all other Army doctrine must occur. If this evaluation determines that the current doctrine is no longer wholly valid in light of changes in Army warfighting doctrine, then change in subordinate Army doctrine is warranted also.

Because FM 100-5 is the "Army's keystone warfighting manual," it "furnishes the authoritative foundation for subordinate doctrine."² Therefore, it follows that at those points when Army warfighting doctrine changed significantly since WWII, Army reconstitution doctrine should have been evaluated for potential change as well. Based on the historical review of warfighting doctrine from the previous chapter, there were clearly three distinct periods between WWII and the end of the Cold War that Army

warfighting doctrine changed. As Robert A. Doughty concluded in The Evolution of US Army Tactical Doctrine, 1946-76:

No single factor "drove" the development of Army doctrine, but changes in national security policy lay at the basis of the sweeping changes in the late 1950's, early 1960's and early 1970's. When the focus of national security policy shifted in these periods, profound changes occurred in the Army's doctrine, organization and equipment.³

With the end of the Cold War and a new revision of FM 100-5, there is now another period since WWII that must be scrutinized to understand the impact that the changes in warfighting doctrine has on the development of reconstitution doctrine.

This chapter will review the Army's reconstitution doctrine during selected periods in modern Army history during which there was a significant change in warfighting doctrine. Representative examples will be discussed to illustrate how this doctrine was applied in theory or in practice.

Reconstitution Doctrine

WWII: Establishing a Doctrinal Foundation

During WWII, the Army did not have a specific "reconstitution" doctrine. The Army did however, develop a replacement system to govern the flow of replacements for losses sustained in forward combat units. Additionally, there was an established doctrine for replacing equipment. Although reconstitution clearly involves more than just the replacement of personnel, the primary reconstitution-related concern was the manning function. Due to the fact that the majority of the casualties were riflemen from the front line infantry divisions, "infantrymen were the key ingredient in unit reconstitution."⁴

Initially, units were trained in 250 man packages, complete with a chain of command and unit training records for an entire "reinforcement company." Although the idea of sending complete units forward was appealing because it maintained cohesion in

the group, often groups no larger than four would arrive in a front line combat unit. This concept was overcome by enormous unanticipated casualties following D-Day and soon an individual replacement system became the norm.⁵

Thomas M. Huber of the Combat Studies Institute said in an essay entitled "Combat Replacements: A Historical Overview," that "it was decided that serial stockage of individual replacements, the pillar of the WWI system, would be refined but kept."⁶ Because Army "plans called for reception functions to be separate from training functions," replacement training centers (RTCs) were soon established.⁷ Detailed tables were established by the Statistical Section of the Classification and Replacement Division under the Adjutant General which "estimat[ed] how many men must be prepared in each specialty to meet loss requirements."⁸

Although the focus of this thesis is on tactical level reconstitution, the strategic level replacement system in WWII must be reviewed because of its tremendous impact at on the tactical combat units. After inprocessing through a reception center and receiving basic training at an RTC, a new recruit in the US would proceed to a staging depot and then be shipped to a port of embarkation. Upon arrival overseas, the recruit would proceed from a theater depot to an Army depot to his combat division. Even within his destination division, he would have to filter down from division to a regiment, to a combat battalion and finally to his new company. As Huber points out, "The whole process commonly took four or five months and sometimes ten."⁹

This lengthy process had many disadvantages. Although the replacement system accomplished its purpose of putting replacements into units that had suffered high casualties, the cost in terms of morale was extremely high. Replacements would arrive at their destination combat unit after months of apprehensive travelling, processing and training. Huber notes:

Creature comforts were few. Transport was by boxcar or open trucks. Mess and sanitation facilities were often inadequate. Most of the complaints, however, were about associational deprivation and boredom. The replacement faced a solitary pilgrimage of four months or longer, as he was shuffled from one anonymous depot to another. Every few weeks he was shifted to a new environment where every face was unknown. He was not comfortable and had nothing to do. He could be detained anywhere along the line. Moreover the fact that his future was a blank to him tended to magnify every rumor, so he suffered from exaggerated apprehensions.¹⁰

Many of the new recruits became casualties themselves because of their low morale upon arrival on the front lines and as a result, it was not uncommon that "replacements sometimes had combat exhaustion before they saw combat."¹¹

Lieutenant General Joseph Stilwell, Commanding General, Army Ground Forces was aware of the low morale problem and the impact it was having in restoring the combat effectiveness of combat units. Consequently, he proposed a plan for the Pacific theater whereby new recruits would train together in units that would be earmarked for deployment to specific divisions. Planners in the Replacement and Training Command, Pacific Ocean Areas, rejected Stilwell's plan as impractical because they felt it was too difficult to predict which divisions would need replacements six to twelve months out.¹²

Because a steady stream of replacements flowed into the forward divisions, "unit rotation was impossible and unnecessary."¹³ Since the Army did not have a sufficient number of replacement divisions in the European Theater, forward divisions would often remain in contact until the end of a campaign. Soldiers were denied passes and "rest and recreation centers for corps and divisions did not receive attention until October" 1944.¹⁴ Even when regiments or battalions were pulled back from the front lines for rest and reconstitution, "the main force of the division was on the line engaged in combat."¹⁵ As a result, soldiers were unable to truly get a break from the fighting and combat exhaustion casualties mounted.

Historical Example: The Battle of Schmidt

A brief examination of the Battle of Schmidt helps to highlight the reconstitution process as it was practiced during WWII. The Battle of Schmidt provides perhaps the best documented example of a combat unit that underwent the reconstitution experience because it sustained such high personnel and equipment casualties. Significant lessons were learned as a result of the 28th Infantry Division's experience during the Battle of Schmidt. Many actions taken resulted in both positive and negative results.

At Schmidt, Germany, the 28th Infantry Division fought in a major offensive action from 2-14 November 1944. At the beginning of the battle the division had 13,932 effectives. When the division was removed from combat because it was incapable of further sustained combat operations, the division strength was 13,447 effectives. The overall strength of the division changed little during the battle. However, during those two intense weeks of combat, there were 5028 total losses with 3,637 being actual battle casualties and 1,391 being non-battle casualties.¹⁶ It is important to note:

The overwhelming majority of casualties occurred in the rifle battalions among infantrymen. A 1944 infantry division had roughly 6,000 riflemen, so that between 2 and 7 November the 28th Division lost nearly all its infantry fighting strength.¹⁷

A failure of some battalions and regiments to provide accurate and timely casualty reports prevented the Division Commander and personnel officers from knowing the true extent of the losses during the battle. Consequently, the Commander continued to provide a continuous flow of men and equipment to the forward units and failed to remove from combat those units that were truly combat ineffective.

For example in the 1st Battalion of the 110th Infantry Regiment, despite receiving a continuous flow of replacements, fighting was so heavy that some companies were operating at sub-platoon strength. The unit had lost much of its original leadership

and was badly disorganized. On the morning of the 13 November, "the regiment attempted to reconstitute the battalion. Casualties were so severe that it was impossible to reform companies or even platoons."¹⁸ Instead they formed defense groups that attempted a piecemeal defense and as a result suffered another 616 casualties before the assistant division commander ordered that the regiment be withdrawn from any more offensive action.

Altogether the 110th Regiment had suffered over 2,000 casualties and, despite numerous replacements, was combat ineffective.¹⁹ Although the official policy in the theater was that the individual replacement system would not cause a degradation in combat effectiveness, it became painfully clear that "the 28th Infantry Division had become a large collection of people and equipment. This showed that reconstitution is more than a personnel replacement and equipment issue."²⁰

On the positive side, the experience of the 112th Infantry Regiment of the 28th Infantry Division provides an example of a successful reconstitution effort stemming from the same battle. The 112th had suffered heavy casualties during the battle through 7 November. In a report published by CSI entitled Unit Reconstitution--A Historical Perspective, Edward J. Drea notes:

At Schmidt on 3 November the men were too tired to dig foxholes. They were constantly exposed to the elements, the cold rain and the bone chilling mists. Men without blankets or overcoats huddled in rain filled foxholes trying to keep out of the cold. They had no overshoes, yet had to stay in the waterlogged positions. German artillery and small arms fire was so intense that men of the 112th Infantry could not leave their foxholes. They were forced to dispose of their excrement in K-ration boxes, pieces of paper, or handkerchiefs. Such conditions naturally affected morale and unit cohesion.²¹

Major General Cota, the Division Commander, was aware of the extent of the 112th's losses and decided to withdraw them from the fighting so they could reconstitute.

Once withdrawn from direct combat, they were able to rest, take showers, write letters home, and eat hot meals. Even the division band played for the men who had survived the heavy fighting as they talked over the experience amongst themselves. After three days, they began to infuse replacements into the platoon-sized groups that had reformed. New weapons and personal equipment was issued and the men begin a period of training to rebuild unit cohesiveness.²²

Following the Battle of Schmidt, the entire division was withdrawn into a "quiet sector" on the Luxembourg-German border where they would continue their reconstitution. During the next thirty days, the soldiers in the division reestablished their combat effectiveness as they "conducted assault training, learned patrolling techniques, and gradually became acclimated to life in a combat theater's front line."²³ The success of their reconstitution effort was apparent during their next engagement in which they fought tenaciously against a German counter-offensive remembered today as the Battle of the Bulge.

Cold War Escalation and Vietnam

Considerable changes in warfighting doctrine occurred during the 1950s. This was primarily a result of developments in atomic weapons technology and capability on behalf of both the US and Soviets. Although replacement doctrine and practices were reviewed and adjusted, no significant changes in reconstitution doctrine occurred even through the Korean War and the fifties. It is noteworthy that replacement operations in Korea had a rough start because:

The Army was then in transition between Army Mobilization Plans I and II. Both plans assumed conflicts like World War I and World War II, in which primary adversaries would be engaged, mobilization would be largescale, and the public and Congress would confer ample resources. None of these assumptions applied. Also the Plans assumed that mobilization (M-Day) would precede combat (D-Day) as it had in World War II, allowing the lumbering selection and training apparatus to gain momentum before combat.²⁴

Since D-Day actually preceded M-Day, General Douglas MacArthur sent the 24th Infantry Division from Japan to Korea, followed by the 25th Infantry Division and 1st Cavalry Division. After exhausting available active duty divisions, reservists were sent to Korea because they already possessed combat skills because of their prior military experience. Conflicts arose over the use of reservists "who felt they were being punished because they had served before."²⁵ Additionally, the point system which was developed to "allow rotation out of the front line after nine months, out of the rear areas after twelve, and out of Japan after three years," was very ambiguous and hard to equitably enforce.²⁶

Despite all the turbulence and criticism which occurred when the Army attempted to apply a global war replacement system to a short-notice limited war, the end result was that combat divisions "were replenished as in World War II by individual replacement."²⁷

The Army had experienced a dilemma in Korea that was still present during the Vietnam War. The Army had to maintain a credible presence in Europe as a deterrent to Soviet attack, yet had to respond elsewhere in the world to prevent Communist expansion. Yet, the Army was able to replenish its damaged combat units in Vietnam with greater efficiency and with less criticism than in Korea.

Part of the success of the Vietnam replacement system was that American involvement of combat units was slower in developing. Inductees had time to be trained before entering combat which avoided the problem of sending a large portion of the

experienced Army directly into combat. The individual replacement system was a strategic level replacement system, yet it had its greatest impact at the tactical level. The twelve month rotation policy was clearly understood by the combat soldiers and greatly contributed to their morale. Unfortunately the twelve month rotation policy also received extreme criticism because:

(1) The ablest combat personnel were lost to rotation, (2) larger numbers of people had to be inducted, (3) the personal relationships and personnel knowledge on which unit efficiency depends ("cohesion") were constantly disrupted; and (4) veterans with a jungle combat skill returning to a U.S. base often had to learn a new skill, which was expensive.²⁸

Since the preponderance of the fighting was characterized by small unit infantry combat, most reconstitution activities consisted of immediate and deliberate reorganization. A corps level unit rotational system was also used, whereby "divisions would rotate in and out of the field to provide time for the integration of replacement personnel."²⁹ The division base camp served as the focal point of most large-scale reconstitution activities. Individual replacements received combat training in the division bases. The divisions would send them down to a battalion which in turn send them down to companies, platoons and squads.

Historical Example: The Battle of Ia Drang Valley

Between 1964 and 1966, the Army built up its combat strength in Vietnam from 16,000 to 166,000.³⁰ During this influx of units and individual replacements, the first major battle involving US combat troops in Vietnam took place. The Battle of Ia Drang Valley was part of the Pleiku campaign which involved the 1st Cavalry Division (Airmobile). The division had been redesignated from the former 11th Air Assault Division (Test) after two years of intense training at Fort Benning, Georgia. This division,

was born of President John F. Kennedy's determination that the U.S. Army, which for a decade had focused exclusively on training and arming itself to fight World War III on the plains of Europe, prepare to fight a series of small, dirty wars on the world's frontiers.³¹

It was the 1st Battalion, 7th Cavalry from the 3d Brigade that took the lead in the Pleiku campaign which was intended to be a routine "search and destroy" mission. The battalion, commanded by Lieutenant Colonel Harold G. Moore, flew by helicopter into landing zone (LZ) X-RAY at the base of the Chu Pong massif in the Ia Drang Valley of the Central Highlands on the morning of 14 November. At full strength the entire battalion was authorized thirty-seven commissioned officers, one warrant officer and 729 enlisted men.³² However, personnel turbulence plagued the battalion even before its first firefight. Even after receiving six new lieutenant platoon leaders, who had not trained with the battalion at Fort Benning, the four line companies of the battalion had only twenty of twenty-three authorized officers.³³ In his book, We Were Soldiers Once...And Young, Harold G. Moore says,

The enlisted ranks had been badly whittled down by expiring enlistments, malaria cases, and requirements for base-camp guards and other workers back at An Khe. Alpha Company had 115 men, 49 fewer than authorized. Bravo Company, at 114 men, was 50 short. Charlie Company had 106 men, down by 58. And Headquarters company was also understrength, and I had been forced to draw it down even further by sending men out to fill crucial medical and communications vacancies in the line companies.³⁴

By 1130 on 14 November, LZ X-RAY was secure. The lead company entered into a firefight with a platoon-sized enemy force and captured a prisoner. Upon interrogation, the prisoner indicated that there "are three battalions on the mountain who very much want to kill Americans."³⁵ Three battalions of enemy was roughly estimated to be equivalent to 1,600 personnel. Because the fighting began to intensify as the day progressed, and the battalion had less than 200 fighting men, the commander requested an additional company for reinforcement. By the end of the first day of fighting, the battalion had four officers and eighty-one enlisted as either killed or wounded.³⁶

By nightfall, the reinforcement company had arrived by helicopter along with ammunition, rations, water, and medical supplies. Through a system established between Moore and the helicopter lift company commander, every helicopter that came in to the landing zone with supplies or troops would also evacuate the wounded.

Throughout the first night, there was sporadic fighting which prevented the already exhausted soldiers from resting. One platoon had been cut off earlier in the day and had sustained eight killed in action (KIA), twelve wounded in action (WIA), and had only seven uninjured men remaining. Although they had sustained 74% casualties, the isolated platoon remained combat effective and was able to continue to defend all night against numerous enemy attacks.³⁷

The next day, 15 November, the battalion continued its perimeter defense of LZ X-RAY and defeated numerous North Vietnamese counterattacks. At times the fighting was very intense and "there was considerable hand to hand fighting."³⁸ Additional troops from the 2d Battalion, 7th Cavalry arrived by helicopter to reinforce the heavily committed soldiers at LZ X-RAY. Later in the day, the lead companies of 2d Battalion, 5th Infantry arrived by foot following an air insertion into nearby LZ Victor. Sufficient forces were then on site which allowed for the relief of the isolated 2d Platoon from Bravo Company, 1st Battalion 7th Cavalry.

Following another restless night of fending off enemy attacks and an early morning firefight on 16 November, the brigade commander ordered the withdrawal of the elements of the 1st and 2d Battalions, 7th Cavalry who had participated in the bulk off the fighting. After three days of intense combat, and after having sustained 79 KIAs and 121 WIAs, the survivors of the Battle of Ia Drang Valley were moved "by UH-1D to FALCON LZ, then to Camp Holloway at Pleiku for two days of rest and reorganization."³⁹

Ironically, those soldiers of the 2d Battalion, 5th Cavalry and 2d Battalion, 7th Cavalry who remained behind, became involved in another intense battle at nearby LZ ALBANY the following day. Altogether, 234 soldiers from the 3d Brigade, 1st Cavalry Division lost their lives during four days of combat in what become known as the Valley of Death. Moore notes "that is more Americans than were killed in any regiment, North or South, at the Battle of Gettysburg, and far more than were killed in combat in the entire Persian Gulf War."⁴⁰

There were several aspects of reconstitution that took place as a result of the Battle of Ia Drang Valley. First, immediate reorganization took place at the small unit level among those squads, platoons and companies on the ground at LZ X-RAY. New chains of command were established among the survivors and ammunition, radios, and weapon systems were redistributed. The 1st Battalion, 7th Infantry conducted deliberate reorganization with the assistance of other units from the 3d Brigade. The helicopter was extremely responsive as a vehicle for supplying Moore's battalion with replacements for reinforcement and integration into his own unit. At the conclusion of the battle, when withdrawn to Camp Holloway, the unit experienced incremental regeneration as they received trained individual replacements from the division base camp.

It is also important to note that many other tangible and intangible aspects of reconstitution were present during the events surrounding the battle. The battalion and brigade commander were aware of the level of training of the units and their limited exposure to enemy fire prior to the battle, and also understood the impact that personnel turbulence had on the cohesion of the units. The high number of leader and soldier casualties was also an important factor in the decision to reconstitute the battalion. All these factors and more, assisted the battalion and brigade commander in their assessment of the units which led to the decision to remove the battalion from immediate contact for reconstitution.

Active Defense and AirLand Battle Doctrine, 1976-1993

The next major shift in the strategic environment which led to another fundamental change in warfighting doctrine occurred in the mid-1970s when the US refocused on the European continent and the potential for conventional-nuclear war with the Warsaw Pact nations.

It was the formulation of Active Defense doctrine, and later its successor AirLand Battle doctrine that produced the most significant changes in reconstitution doctrine since World War II. The potential for mass casualties on the AirLand Battlefield was greater than at any other period in US Army history because of the advances in technology that led to more lethal combat systems and the possibilities of operations in a nuclear, chemical or biological environment. Reconstitution doctrine surfaced as a major concern as the Army leadership wrestled with the issue of sustaining combat power during a high intensity, long duration campaign.

In an article for Military Review entitled, "Reconstitution," Curtis N. Marsh wrote:

With the advent of AirLand Battle doctrine, images of destruction on a conventional battlefield--with units being depleted through attack, withdrawal, flank maneuver and attack again--put the problem of slowly deteriorating units into a perspective needing immediate attention.⁴¹

It was during the eighties, under the AirLand Battle concept, that immediate attention was paid to the formulation of a formal Army doctrinal publication on reconstitution that theretofore had been missing. The 1983 version of FM 63-2, Combat Service Support Operations--Division (How to Support), provided a point of departure for reconstitution doctrine writers. It described reconstitution as,

the total process of keeping the force supplied with various supply classes, services and replacement personnel, and equipment required to maintain the desired level of combat effectiveness. It also includes restoring units to the desired level of combat effectiveness through the replacement of critical equipment and personnel. Reconstitution encompasses unit regeneration and sustaining support.⁴²

This vague description of reconstitution did little to clarify the complexity of reconstitution and seemed to merely describe the overall sustainment concept.

Also in 1983, CSI published the aforementioned report entitled Unit Reconstitution--A Historical Perspective. This report was based in part on the historical analysis of a report by the BDM Corporation entitled New Approaches to Reconstitution in High Intensity Conflict on the Modern Battlefield. Together, these reports, other similar reports, guidance from the Army leadership and the personal experiences of doctrine writers led to the drafting of the Army's first doctrinal reconstitution document in 1985.

This operational document, written by TRADOC, eliminated the vague concept of sustaining support and listed and described reorganization, regeneration and redistribution as the three reconstitution options. The draft was revised later that year and in April 1986, TRADOC published TRADOC PAM 525-51, US Army Operational Concept for Reconstitution on the AirLand Battlefield.

- TRADOC PAM 525-51 eliminated redistribution as a reconstitution option and listed in an appendix, "Indicators of Combat Effectiveness" which were nearly identical to those described in the aforementioned CSI and BDM reports. Six years later, in January 1992, the Army's first field manual on reconstitution was published as FM 100-9.

It was, however, TRADOC PAM 525-51 that was the emerging doctrine that was in place during the majority of years during which the Army operated under the Air Land Battle warfighting doctrine. TRADOC PAM 525-51 was one of several Army

operational concepts which provided guidance on approved emerging doctrine. Its intent was to set forth,

the operational concept for reconstitution on the AirLand Battlefield. It describes actions commanders take to restore units to a desired level of combat effectiveness. It also outlines staff planning and training, decision making, and execution processes to support the reconstitution effort.⁴³

This emerging doctrine served to remind commanders that reconstitution activities were not just sustainment operations as usual, but were "extraordinary actions which [were] planned and executed by commanders to restore units to a desired level of combat effectiveness."⁴⁴ The manual recommended that commanders make use of already existing Combat Service Support (CSS) systems and organizations and task organize them into ad hoc organizations. For large-scale regeneration, TRADOC PAM 525-51 recommended formation of ad hoc casualty and damage assessment elements (CDAE) and assessment and recovery teams (AART) as recommended in the BDM report.

A key concept in the pamphlet was that "planning and execution are active--they cannot be reactive."⁴⁵ It stressed that planning was continuous and laid out a framework for the establishment of unit standing operating procedures (SOPs) for assessment and execution procedures.

Command and control was another topic worthy of note. Command and control for reorganization remained the responsibility of the commander under going reconstitution in accordance with guidance from the next senior commander. The responsibility for directing and providing regeneration was the "first commander with, or who could rapidly obtain, the resources and capabilities to accomplish the task."⁴⁶ Although not a sweeping change in the way the Army had conducted reconstitution in the past, TRADOC PAM 525-51 provided written guidance that normally a commander two levels higher than the combat ineffective unit would direct and control reconstitution.

For divisional brigades, this meant that primary regeneration support would have to come from corps level, and an armored cavalry unit may even require theater level support.⁴⁷

Historical Examples: REFORGER 1985 and Operation Desert Shield

REFORGER 1985

The DDVM shows that once a doctrinal concept has been formulated, it must be validated. A brief review of REFORGER 1985 will highlight those reconstitution activities during which the "3d Support Command test[ed] the Reconstitution concept" before its publication in 1986.⁴⁸

3d Support Command (SUPCOM) was tasked to reconstitute the 11th Armored Cavalry Regiment (ACR) which had notionally sustained 25-50% casualties. By the combat effectiveness standard presented in the BDM report (light damage: 0-30%, modest damage 30-50%, heavy damage 50%+), this level of damage was considered modest to heavy which meant the unit was essentially combat ineffective.⁴⁹ In accordance with the reconstitution concept, an ACR would require the assistance of corps and even theater level support. As the senior logistics command in the V Corps, 3d SUPCOM was given seventy-two hours to reconstitute the 11th ACR.

A site for the regeneration task force (RTF) was chosen in the corps rear area such that it was out of immediate range of enemy artillery, and had access to combat service support, communications, and railhead facilities. The 85th Maintenance Battalion was given the responsibility to secure the reconstitution site and provide for its initial defense and life support of the RTF. Once established in the reconstitution site, the battalion "initiated planned shipments of class VII (major end items), such as tanks, armored personnel carriers, weapon systems, and other vehicles."⁵⁰ They also supported special maintenance requirements which were generated as a result of the using

equipment from the theater reserve stock which included equipment not common to the 11th ACR.⁵¹

After offloading new equipment at the railheads, weapon systems had to be deprocessed and prepared for combat. Radios and machineguns were mounted, preventive maintenance checks and services (PMCS) were performed and the systems were uploaded with a basic load of ammunition. While experiencing reconstitution itself, the direct support maintenance company of the ACR established priorities for the repair and evacuation of equipment.

Using both corps and theater level heavy equipment transporters (HETs), badly damaged equipment was moved to the reconstitution site for repair or to maintenance and collection points in the corps rear area.⁵² The combat aviation squadron of the 11th ACR received aviation intermediate maintenance (AVIM) support for both flyable and non-flyable aircraft and "inoperable avionics equipment was directly exchanged or repaired in the rear."⁵³.

Because reconstitution planning is a continuous process, many of the reconstitution activities had been planned well in advance based on loss estimates. The RTF pre-positioned class V (ammunition) at the reconstitution site to replenish the undamaged or repaired systems. Corps assets also delivered directly to ACR units, a replenishment of authorized stockage list (ASL) and prescribed load list (PLL) items for the reconstituting units. The 142 Supply and Service Battalion from 3d SUPCOM pre-positioned class I (subsistence), class II (clothing and individual equipment), class III (petroleum, oils and lubricants) and class IV (barrier materials) at the reconstitution site based on estimates and actual need.⁵⁴

Whereas the Army's reconstitution experience in WWII and Vietnam had been primarily a manning or personnel replacement function, REFORGER 1985 was primarily an equipment effort. The exercise did cover soldier-related issues as well. The

68th Medical Group from 3d SUPCOM not only treated and evacuated soldiers, but provided a medical supply and maintenance team which assisted with the reconstitution of the ACR's medical assets. A replacement regulating detachment from the V Corps 22d Personnel and Administration Battalion handled the replacement flow. Their mission was to place trained replacements who possessed specific skills, into appropriate units. They got the replacements from "new arrivals, hospital returnees, personnel released from confinement and stragglers."⁵⁵

Numerous lessons were learned as a result of REFORGER 1985. However, because it was not an actual combat situation, the equipment aspect of reconstitution was the predominant area of the reconstitution operational concept that was tested. The equipment-related logistical aspects of the exercise appear to have been very successful. However, it questionable as to how successful the RTF was at matching up trained crews with the new equipment. The doctrine suggested the use of the concept of weapon system replacement operations (WSRO) in which "crews link up with the weapon system in a designated area and convert the system to a ready-to-fight status."⁵⁶ Additionally, the doctrinal concept recommended that commanders "should maintain as much unit integrity (e.g., squad, platoon, crew, or team) as possible under the circumstances," and that replacements should "be in the form of trained and cohesive small units or subunits."⁵⁷ It is unclear from after action reviews of the exercise if this aspect of the operational concept was successful or even identified as a training objective. Overall, the exercise accomplished the major objective of validating the doctrine. After minor revisions to the draft doctrinal concept, the following year TRADOC PAM 525-51 was published as Army-wide guidance on how to plan for and execute reconstitution.

Operation Desert Storm (ODS)

After numerous additional training exercises using actual Army units and simulations, the Army, by 1990, was accustomed to its emerging reconstitution doctrine as recorded in TRADOC PAM 525-51. However, by 1990, the Army was in the process of developing a new warfighting doctrine in which a more non-linear battlefield was envisioned and separate brigade level operations could be commonplace. Senior Army leaders debated over whether the RTF should be an ad hoc organization or whether it should be an organic part of the corps support command (COSCOM) which would "have the necessary assets to regenerate a brigade without the corps losing its ability to support the rest of its force."⁵⁸ Before working out these and other peripheral issues, on 2 August 1990, Iraq invaded Kuwait. The Army's participation in the US response to this threat to US vital interests in the region would add a new dimension to how combat units plan for reconstitution.

At the tactical level, reconstitution during ODS was readily accomplished by immediate reorganization and WSRO. Combat forces did not experience losses that rendered them so ineffective that regeneration was necessary. In the 24th Infantry Division,

Weapon System Replacement Operations (WSRO) was [sic] conducted by platoon. Platoons were linked up at the DSA prior to G-Day. By doing so, the Division was able to send forward from the DSA a fully trained fighting platoon complete with leadership and supplies/ammunition to replace battle losses. The platoons moved under the control of DISCOM (724 MSB) as the Division attacked.⁵⁹

After action comments for the 24th Infantry Division's Support Command (DISCOM) also revealed that "in every case where the Division was confronted with a logistics challenge, doctrine provided the basic answer."⁶⁰

Reconstitution planning took place throughout the theater. High casualty estimates had been predicted because the Iraqi Army was known to be the fourth largest

in the world and had already showed a propensity to use chemical weapons by their actions during their long war with Iran.⁶¹

The 22d SUPCOM was responsible for logistics support for the bulk of the Army's units and established six logistics support bases.⁶² In accordance with doctrine, COSCOMs supplied the DISCOMs which in turn supplied the forward support battalions (FSBs) of the ground maneuver brigades. The logistics "supply bases contained enough material to support combat operations for up to sixty days."⁶³

Fortunately, the month long offensive air campaign enabled US and coalition forces to defeat the Iraqi's in only four days without any particular unit suffering extremely high casualties. Altogether, American casualties in the air and ground campaign were far lighter than expected. The "reckoning of combat casualties was 144 killed in action and 339 wounded in action, plus ten more missing" out of a force of over 500,000.⁶⁴ On the equipment side, highly trained soldiers, and highly mobile, lethal, and survivable equipment, resulted in relatively light casualties.

For example:

While hundreds of Iraqi tanks were killed, of the 1,956 M1A1 Abrams that engaged Iraqi forces in battle, only four were disabled and four more were damaged but could be repaired. One M1A1 tank took two direct hits in the turret from a T-72. The Abrams crew was shaken, but their tank was still able to fight. The tank commander slewed his turret around, the gunner lased and fired, and they killed the T-72 that had hit them.⁶⁵

At the operational level, logistics during ODS served as a watershed event in the evolution of reconstitution doctrine. As in WWII, Korea, and Vietnam, the implications of strategic and operational doctrine often had a direct impact on tactical level doctrine.

The theater for ODS was not initially mature. Since WWII, the Army had trained for and expected to fight its next major war in Europe where the,

basic infrastructure within which REFORGER participants were transported fed, and housed was well established. Lines of supply including host-nation support, were defined by dormant contracts which automatically kicked in at the beginning of the maneuver.⁶⁶

Although no such infrastructure initially existed, by the time combat operations began in January 1991, the 22d SUPCOM had established a significant infrastructure with the assistance of the host-nation and coalition partners.

What makes ODS such a watershed event in the history of reconstitution doctrine is that there was an almost imperceptible blend between the operational and tactical levels of war. Strategic level mobility assets brought theater level war reserves into the theater for potential use by tactical units.

Although no large-scale reconstitution activities took place, planners from unified command level to battalion level were prepared to conduct reconstitution operations if the need arose. The reconstitution plan was simple in concept but difficult to execute.

For example, soldiers from CONUS installations such as Fort Carson, Colorado were flown to Saudi Arabia and transported to a Replacement Regulating Detachment (RRD) at Logistics (Log) Base Bravo near King Khalid Military City.⁶⁷ There, they were provided amenities such as mess facilities, tents, cots, shower facilities, and morale, welfare and recreation (MWR) activities. These soldiers would link up with equipment from theater war reserve stocks and formed crews. Once formed, the crews trained at a newly established nearby training center and practiced crew drills. The commander of this provisional ad hoc training organization was a brigade command-designee who was in theater as a potential replacement brigade commander in case that need arose.⁶⁸

The theater reserve stocks used by the newly-formed crews primarily came from other units which had deployed to the theater. For example, if a unit arrived in

Saudi Arabia with older M1 tanks, it would turn in its M1s at the port at Ad-Dammam and draw newer M1A1s which had come from repositioned war reserves from Germany. After the older equipment systems were brought up to appropriate maintenance standards, they became theater war reserve stocks. Theater-level assets moved many of these systems to Log Base Bravo where they were issued to the provisional units formed from the soldiers processing through the RRD. The replacements trained on the weapon systems and ultimately formed crews and squads.⁶⁹

The formulation of aviation crews for WSRO followed similar procedures. For example, the Aviation Brigade from the 2d Armored Division at Fort Hood, Texas was deployed by air and sea to Dhahran along with all of its aviation assets. In Dhahran, the soldiers of the unit deprocessed their equipment, prepared it for combat and then went back to Fort Hood leaving their equipment in Saudi Arabia. Individual aviators and aviation maintenance personnel were identified from a world-wide pool by the US Army Personnel Command (PERSCOM) and sent to Dhahran to link up with the 2d Armored Division's aviation assets and conduct training. A Standards and Evaluation team from ARCENT headquarters validated the aviators and newly-formed crews to ensure they were rated properly for their particular aircraft.⁷⁰ These crews were then available for WSRO.

These examples illustrate the complexity of the planning that went into ensuring that sufficient trained replacement ground and aviation crews were on hand in case combat circumstances required reconstitution. Since there was never any large-scale regeneration during ODS, it is uncertain as to how effective the provisional replacement crews and squads would have performed if called upon to participate in actual combat operations.

Certainly what the provisional crew and squad concept represents is a military-wide cooperative effort to ensure sufficient combat power was available to reconstitute

up to a brigade-sized heavy force. Strategic assets (individual replacements, lift assets, and war reserve stocks) were brought into the theater. Individuals and crews were trained under operational level control for employment at the tactical level. This reconstitution concept is radically different than the regeneration concept during the latter part of the Cold War as represented by the reconstitution of the 11th ACR during REFORGER 1985. Because of the availability of enhanced strategic mobility, perhaps reconstitution planning for ODS will serve as a benchmark for future operations under similar circumstances.

CHAPTER SIX

FORCE PROJECTION SCENARIO

General

The hypothesis for this study is that the Army will conduct reconstitution differently in the nineties than it did during the Cold War. As the DDVM infers, there is a very close relationship between changes in the strategic environment, warfighting doctrine, and reconstitution doctrine. The historical review of warfighting and reconstitution doctrine in previous chapters shows that the first part of the model regarding doctrinal development is accurate.

The second part of the model suggests that validation of doctrine occurs through the actual or simulated conduct of Army operations. The review of selected historical reconstitution examples bears testimony to the accuracy of this premise. It is with this premise in mind, that the hypothesis will be tested in this chapter.

Clearly the end of the Cold War signifies a change in the strategic environment. Likewise, recent revision of FM 100-5 reflects a clear change of focus in how the Army could conduct operations in the 1990s. What has not been tested, is whether the current doctrine in FM 100-9 is still valid under the emerging concepts of how we are likely to conduct operations in the nineties.

In an attempt to test the validity of current Army reconstitution doctrine, this chapter presents a force projection scenario representative of the potential Army operations in the nineties. The scenario is notional and reflects a compilation of ideas, concepts and structure from many sources.¹ This hybrid scenario is a synthesis of

instructional material from CGSC, the Combat Training Centers, actual Army operations, and original ideas.

The scenario involves the deployment of a corps-sized army component (ARFOR) that is subordinate to a Joint Task Force (JTF). The JTF is organized under US Tropic Command (USTROCOM), a notional unified command (Figure 2). It is a contingency operation scenario that involves joint, coalition, and interagency cooperation in response to a threat to US security interests in the Oceana Theater of Operations (OTO) (Figure 3). Present in this scenario are numerous simultaneous activities that are considered as operations other than war under the new warfighting doctrine.

No scenario could possibly encompass all the different circumstances under which the Army could be employed in the nineties. As shown in the DDVM, validation of doctrine occurs through an iterating process. Either actual employment of Army forces during operations or scenario war gaming through modeling, simulations, and training exercises will result in validation of current doctrine. The scenario that follows is representative of only one iteration in the validation process.

Strategic Setting

This scenario takes place in the small notional country of Jaman located between Micronesia and Indonesia (Figure 3). Jaman is bordered on the south by the larger country of Bali. Both countries share a common island land mass which is roughly equivalent in size to the big island of Hawaii (Figure 4). Historically, the two countries have not enjoyed an amicable relationship because of a lasting dispute over the precise alignment of the international border.

During WWII, Japan conquered the island. At the 2d Conference of Foreign Ministers in Moscow which followed the surrender of the Japan in 1945, the island was divided along the equator. As a result of the arbitrary post-war division of the island,

Bali lost the Tarawak region in the central highlands which amounted to roughly one-fifth of its pre-war territory. As the Cold War emerged, the strategic location of the island increased in significance. In order to establish influence in the region, the US welcomed Jaman as a trading partner and supported the development of the country through security assistance programs. Bali remained autonomous but was economically and militarily supported by the Soviet Union who likewise desired a foothold in the region.

The strategic significance of the island for the US is basically three-fold. The island lies directly along the shipping routes between Micronesia and Indonesia that link the Indian Ocean and the Pacific Ocean. The freedom of vessels to travel through the straits in the region is essential to the economic health of the US as it seeks to rebuild its sluggish economy and reduce its massive budget deficit after a decade of defense buildup in the 1980s. Safeguarding the critical sea lines of communication in the region remains a fundamental security objective for the US.²

Secondly, the world's fourth largest oil reserve was discovered in 1987 along the coastal plains in the Tarawak region and offshore amongst the small Marlin Islands to the west of the Jaman. As the US looks for alternative sources of oil imports to reduce dependence on Middle East supplies of oil, this new discovery has become increasingly significant. A threat to the control of the oil fields is considered a threat to the economic interests of the US.³

Thirdly, the communist-supported country of Bali is threatening to overthrow the democratically-elected government of Jaman and regain control of the disputed Tarawak region. The US has pledged to the Jamanian government through the Mutual Defense Treaty of 1954 that it will continue to support the democracy of Jaman. Preserving security alliances and promoting conditions conducive to democratization and

peaceful political change continue to also be fundamental strategic security interests in the region.⁴

Country Profiles

Jaman

Jaman has a population of 2.1 million. The majority of the population lives along the coastal plains and in the lowland regions along the major rivers. The major population centers are the port cities of Jaman City in the north, Pontiak in the center of the north coast, and Port Maru on the north edge of the Tarawak region (Figure 4).

Port Maru and Jaman City are both capable of receiving deep draft ships and have adequate storage and discharge facilities to simultaneously accommodate any combination of two of the following types of ships: fast sealift, breakbulk, container, or Cape Henry class (RO/RO).⁵ A large, modern international airport is located in Jaman City which is capable of receiving C-5A aircraft with outsize cargo.⁶ There is a large airfield capable of receiving C-141 aircraft at Port Maru. Aircraft no larger than a C-130 or C-17 can be accommodated at the dirt airfields outside Pontiak and San Cristobal along the northern floodplains. The only improved roads are in the major cities except for the perimeter road that was initially built before WWII and has been upgraded through US security assistance funding.

Because the island lays astride the equator, it is extremely hot and humid. Although the interior of the island is extremely mountainous, the coastal plains are heavily farmed. The economy is primarily based upon agricultural. The main cash crops are rice, rubber, and sugarcane. Because of recent investments by US oil companies, the newly discovered oil reserves are expected to surpass the revenues from agricultural production by 1994.

The people of Jaman share a similar Spanish heritage as their nearby neighbors in the Philippines.⁷ The predominant religion is Catholicism due to the heavy missionary effort from the US since 1945.⁸ Economically the Jaman people are very diversified. There are extremes of abject poverty and wealth in the urban centers. There is mainly subsistence living in the tribal villages not involved in commercial agriculture. This extreme standard of living differential has resulted in a perceived relative deprivation that is the root of much of the political unrest in the country.⁹

Adding to the problems of the unstable democratic government is the wide spread corruption that pervades the local provincial and state governments. Much of the US economic aid has been diverted from social programs to the pockets of the elected officials. Additionally, since the mid-1960s, Jaman has been used increasingly as a transfer point for opium and processed heroin from the "Golden Triangle" and southeast Asia.¹⁰

Two insurgent groups operating in Jaman recently put aside their long standing rivalry and joined forces in 1992. The first insurgent group is the People's Revolutionary Party (PRP) which has operated throughout the tribal villages in the lowland and central highland regions. It has engaged in a Maoist-type protracted insurgency since 1981 in an effort to gain popular support of the oppressed Jaman tribal people and ultimately overthrow the government and install a communist regime. The PRP has received financial and military support from Bali and North Korea.

The second insurgent group is the Tarawak Liberation Front (TLF). Since its inception in 1962, the TLF has attempted to recruit the tribesmen of the Tarawak region to revolt against the Jaman government and reestablish the pre-WWII border. In 1985, the TLF began a terror campaign against the urban centers and has gained a significant foothold in the port and airfield operations at Port Maru. This success is largely due to the increased support from both Bali and the opium exporters in the "Golden Triangle"

who have been frustrated by US interagency efforts to stop the flow of illegal drugs into the US. Many of the Jamanians in the Tarawak region have been generously rewarded for their support of the international drug trade.

Both of these insurgent groups have operated extensively out of the central highlands in both Jaman and Bali. When they joined together in 1992, they became the People's Liberation Front (PLF).

The Jaman Defense Forces (JDF) are extremely austere (Figure 5). Their Army is composed of two commando (light infantry) brigades and a separate mechanized brigade equipped with US made M113 armored personnel carriers. They have one special operations battalion and a paramilitary defense force that offers home defensive capability through the administration of local militias. Indirect fire support is provided by one battalion of 105mm-towed artillery.

The Jaman Air Force includes one squadron of twelve US made F-15 Eagle jet aircraft, an air defense brigade, and a helicopter brigade. The helicopter brigade includes a battalion each of US made AH-1 attack, UH-1 utility and CH-47 medium lift helicopters.

The Jaman Navy is composed of one amphibious assault battalion equipped with two US made landing craft, and a ten-vessel coastal patrol unit. Over fifty fishing vessels are registered in the Naval Reserve Fleet for use in times of national emergency.

Bali

Bali is twice as large as Jaman in terms of both population and land area. Like Jaman, the majority of the population live along the coastal plains and in the larger cities. The largest population density is in the capital of Karl Marx City (KMC). The primary religions are Islam in the cities and a mix of Catholicism and animism in the remote tribes. The international airport and a deep water port are also located at KMC. All

industries are state-controlled and the country has a mostly subsistence economy centered around the same agricultural industries as Jaman. One primary distinction is that Bali relies much more heavily upon its fishing industry because of its relative economic isolation.

Major international ports are located at KMC and Puerto Verde. As in Jaman, the only improved roads are in and between the urban centers. The major cities are Palo Alto, KMC, Buka, Cape Pescadero, Puerto Verde and Santo Colombo. Numerous unimproved roads extend into the central highlands. Two of these roads cross the arbitrary border between Jaman and Bali and serve as the principal supply routes for the insurgents operating in the Tarawak region. Few roads exist along the eastern plains of the island. However, during the dry season between December and May, the eastern plains are very trafficable by all-terrain-vehicles except across the narrow and steeply banked rivers flowing down from the highlands.¹¹

Since the end of WWII, the Soviet Union provided a significant amount of economic aid to Bali and in return received basing rights and a foothold in this strategically important part of the world. A major fear of the Soviet Union was that unchecked US control of the straits through Indonesia and Micronesia would force the Soviet fleet to navigate around New Zealand and Australia in order to get to the Indian Ocean. In 1991, when the Soviet Union dissolved and reemerged as the Commonwealth of Independent States (CIS), the CIS assumed responsibility for arms shipments to Bali. However, the CIS cut its economic assistance in half and began a rapid withdrawal of the more than two thousand military advisors from Bali due to a lack of funding for military personnel programs.

For over forty years, the Balinese government had been supplied Soviet made arms and equipment. With their primary economic aid drastically cut, Bali's economy

immediately began to crumble. Even before the last former-Soviet advisors were gone in the fall of 1992, the Bali government had begun plans to invade their northern neighbor.

Bali intended to capture the Tarawak oil fields and gain control of the off shore Marlin Islands where the new oil reserves had been discovered. Control of the oil fields would stimulate its staggering economy. In an effort to disguise its true intention, Bali stepped up a propaganda campaign aimed at convincing the Jamanians of the Tarawak region and the international community that the 1945 division of Jaman and Bali was invalid. Bali claimed that the disputed Tarawak region still belonged to it and that the pre-1945 division of the two countries was the true international border. In April 1992, in an effort to further disrupt the Jamanian government, Bali incorporated the newly-formed PLF into the Balinese People's Defense Forces (BPDF) and began to fund their terror campaign in the Tarawak region (Figure 6).

The BPDF has an army, navy and air force (Figure 6). The army is called the People's Revolutionary Army (PRA) and has three light infantry regiments, one motorized (BTR-60) regiment, and one independent tank battalion (T-72). Additionally, they have a special operations task force which conducts reconnaissance. It also conducts both overt and covert special operations and is greatly feared and distrusted by the majority of the Balinese people. The army also has an artillery brigade which consists of two battalions of 122mm towed artillery (D-30) and one multiple rocket launcher battalion of 122mm BM-21s.

The air force is called the People's Air Command (PAC) and has one squadron of fifteen MiG-21s jets, one squadron of Mi-24 Hind attack helicopters and one squadron of Mi-2 Hoplite utility lift helicopters. Additionally, the PAC controls two batteries of ZSU-23-4 self-propelled antiaircraft guns.

The naval component of the Bali armed forces is called the Naval Defense Fleet (NDF). When the naval task force from the CIS pulled out of the port at KMC in

1992, the NDF was reduced to an amphibious assault brigade. This marine brigade has one battalion of motorized infantry (BTR-60) and two battalions of light infantry along with an organic artillery battalion, air defense battery and 120-mm mortar battery.

The Road to War: Summary

1945	Jaman and Bali are arbitrarily divided along the equator
1954	US/Jaman sign Mutual Defense Treaty
1965	Jaman becomes major transfer point for drug traffic to US
1981	PRP begins Maoist protracted insurgency; Bali/North Korea support
1984	US begins crackdown on drug trafficking through Jaman
1985	TLF begins terror campaign in urban centers
1987	World's fourth largest oil reserve discovered in Tarawak region/Marlin Islands
1991 AUG	Dissolution of Soviet Union; CIS emerges
1991 SEP	CIS cuts economic aid to Bali in half; Bali economy falters
1991 OCT	CIS begins withdrawal of advisors and naval task force from Bali
1992 JAN	PRP and TLF merge to become People's Liberation Front (PLF)
1992 APR	Bali government incorporates PLF into the BPDF
1993 MAY	PLF begins attacks on Tarawak oil fields; increase terror campaign
1993 JUN	UN pressures CIS to discontinue arms shipments to Bali
1993 NOV	BPDF posture forces along border poised for attack
1994 JAN	Insurgency halts oil production; Jaman economy affected
1994 MAR	Border skirmishes escalate in disputed Tarawak region
1994 MAR 24	US President sends personal message of concern to both countries

The US Response: USTROCOM

In May 1993, when the PLF began its attacks on the Tarawak oil fields, the USTROCOM commander-in-chief (CINC) sent an OPREP-3 PINNACLE report along with an assessment, to the National Command Authorities (NCA). The President acknowledged the possibility of a military response and directed the Joint Chiefs of Staff (JCS) to issue a warning order to USTROCOM. The TROCOM staff began its course of action development by modifying OPLAN 2001 (TROPIC GUARDIAN).

When the BPDF postured forces along the border in November 1993 and threatened to attack to seize the Tarawak oil fields, the JCS issued an alert order to execute CONPLAN 2001-4 (TROPIC STRIKE). The 21st Airborne Corps headquarters was designated as the JTF headquarters (JTF LIGHTNING) and the initial troop list was prepared (Figure 7). On 2 February 1994, the CINCTROCOM ordered a Joint Training Exercise involving elements of the 7th Fleet and 3d Marine Expeditionary Brigade (MEB) in the vicinity of Kwajalein Atoll and the East Caroline basin. USTROCOM also dispatched additional elements of the 7th Fleet in support of a United Nations (UN) resolution calling for an international blockade of Bali.

Simultaneously, afloat pre-positioned ships and Maritime Positioning Ships (MPS) loaded with heavy military equipment and supplies began movement toward Jaman from Guam. The commander of US Forces Command (FORSCOM) provided a light infantry brigade from Fort Townes, New York at the request of CINCTROCOM. The brigade deployed to the island of Guam as part of the theater reserve and began training on 18 February for possible future combat operations.

On 24 March, ten US oil production engineers who had ignored state department requests to leave Jaman, were killed in a bombing attack at an oil drilling site near Tara. That evening the NCA issued an order to execute JTF CONPLAN 2001-4.

The following are the missions of USTROCOM and JTF LIGHTNING:

USTROCOM Mission: When directed, USTROCOM forces deploy to the OTO and take actions in concert with host nation and coalition forces to deter, and if necessary, counter an attack by Bali forces and maintain US and allied access to key oil reserves and sea lines of communication. As required, restore the territorial integrity of Jaman and, if directed, destroy the offensive war making capability of Bali.

JTF LIGHTNING: When directed, JTF LIGHTNING deploys to Jaman and takes actions in concert with host nation and coalition forces to deter an attack by Bali. If deterrence fails, JTF LIGHTNING defends designated critical oil production facilities (Tarawak and Marlin Islands oil fields) and defends approaches to air and sea ports (Port Maru, Pontiak, Jaman City, and San Cristobal) in order to protect the arrival of follow-on

forces. On order, JTF LIGHTNING attacks to defeat enemy forces in zone, restore the territorial integrity of Jaman, and if directed, destroy the offensive warmaking capability of Bali.

The JTF LIGHTNING campaign plan consisted of the following five phases:

Phase I. Deterrence/secure foothold in Jaman

Phase II. Initial combat against the BPDF

Phase III. Restore territorial integrity of Jaman

Phase IV. Destroy the warmaking capability of Bali

Phase V. Counterinsurgency/counterdrug/peacekeeping

The following is a summary of the conditions and objectives for Phase I and some of the activities to be accomplished:

Conditions:

1. US security interests are threatened
2. BPDF forces threaten to attack
3. NCA issues execute order

Objectives:

1. Establish JTF LIGHTNING headquarters
2. Establish liaison with host nation/coalition forces (Philippines, Australia, Fiji, Japan, New Zealand, Indonesia, and Papua New Guinea)
3. Deploy forces into OTO; secure foothold in Jaman
4. Deter BPDF attack into Jaman

Activities:

1. Introduction of Special Operations Forces (SOF) and strategic reconnaissance elements from Joint Special Operations Task Force (JSOTF) to link up with host nation
2. JTF assault command post (CP) and first echelon of combat service support forces deploy to Jaman City
3. Enforcement of UN blockade of Bali

4. Show of force (NAVFOR deploys carrier battle group (CBMG) and Marine Expeditionary Brigade (MEB) to OTO. ARFOR deploys light infantry brigade with heavy task force on an emergency deployment readiness exercise (EDRE) near Jaman City)
5. USTRANSCOM begins repositioning of strategic lift assets
6. Intermediate Staging Base (ISB) set up on Guam
7. Hospital Ship Grace repositions from South China Sea to West Caroline Basin
8. CINCFORSCOM provides a light infantry brigade to CINCTROCOM for deployment to Guam as part of the theater reserve.

The Battle of Tara Valley

The government of Bali was not intimidated by the presence of US and coalition forces off shore. Nor was Bali intimidated by the show of force of US troops on the ground in Jaman City. On 30 March 1993, a representative from Bali issued the following proclamation before an emergency session of the United Nations:

The childish saber-rattling by the United States is but another example of Yankee Imperialism. The presence of American forces on Jamanian soil is considered an immediate threat to the sovereignty of Bali. The legitimate government of Bali has no intention of securing the disputed Tarawak region through forceful means. However, we respect the right of the inhabitants of Tarawak to determine their own political allegiance and future.

On 31 March, the BPDF launched a surprise attack into the Tarawak region that penetrated through the Jamanian forces stationed along the border. The PRA air assaulted one infantry regiment to secure the Tarawak oil fields and seized Port Maru with the motorized infantry regiment. One Jamanian commando regiment was defeated in the cross border attack and the remnants infiltrated across the Tara Range toward San Cristobal on the eastern side of the island.

The only coalition forces on the ground at the time of the PRA attack came from the Division Ready Brigade (DRB) (TF THUNDER) from the 26th Infantry

Division, Dimmick Barracks, Hawaii with its accompanying support elements and one battalion of UH-60 Blackhawk helicopters from the Division Aviation Brigade for utility lift (Figure 8). The heavy task force (TF BRADLEY) from Camp Brockmann, Korea was under operational control (OPCON) of TF THUNDER and was not scheduled to close into the Jaman International Airport for another twenty-four hours.

The JTF LIGHTNING commander immediately directed the commencement of Phase II (Initial Combat against the BPDF) of Operation TROPIC STRIKE. The 3d MEB positioned for its assault to seize Port Maru. The 1st CBMG controlled the waters around the Marlin Islands oil fields and would establish air superiority in the OTO. The 21st Airborne Division loaded out its DRB 1 unit from the "green ramp" at Fort Loveland, North Carolina for simultaneous battalion-sized airfield seizures at Pontiak and San Cristobal. The 3d (US) Ranger Battalion was directed to seize the Port Maru Regional Airport and link up with the 3d MEB who would then expand the beachhead line as far inland as Tara.

TF THUNDER would move by Divisional and Corps lift assets forward into Tara for operations in the mountainous jungles passes along the international border. The heavy task force would link up with TF THUNDER north of Tara to support operations in the Tara River Valley (Figure 9).

The intent of Phase II operations was to secure the critical oil fields, airports, and sea ports, and to provide for the protected arrival of follow-on forces arriving by sea or air. Once the entire airborne division, light infantry division, Fijian motorized infantry battalion, and Australian engineer brigade were on the island, USTROCOM would order JTF LIGHTNING to transition to Phase III (restoration of the border).

During the early morning hours of 1 April, JTF LIGHTNING achieved overwhelming success in seizing all of the Phase II objectives. However, the BPDF launched a massive counterattack across the mountain passes into the Tarawak region

before TF THUNDER was able to complete its move by foot from Tara into its assigned zone along the border. After twenty four hours of intense close combat in the Tara Mountains against the remaining two PRA infantry regiments and the amphibious assault brigade, TF THUNDER was forced to fight a withdrawal under pressure back into the town of Tara where it linked up with TF BRADLEY and the 3d MEB.

The exhausted and badly defeated men of TF THUNDER began an extraction from the Tara Valley by helicopter beginning at 0300 hours on 3 April. When they arrived at Tactical Assembly Area (TAA) Austin, near Pontiak, the grim reality of the battle began to emerge. The 1st battalion, 35th Infantry had deployed with 540 of its 551 authorized soldiers yet could muster only 351 soldiers (65%) for duty on the morning of April 3. Additionally the battalion commander, operations officer (S-3), intelligence officer (S-2), fire support officer (FSO), and two company commanders had been killed in an artillery barrage during a rest halt as they marched up the Tara Mountain trail before the counterattack. Not all the casualties were due to enemy fire. Despite the excellent physical fitness of the majority of the soldiers, many had become heat casualties during the previous forty-eight hours after carrying 75-100 pound rucksacks without sleep or resupply of water.

The 2d Battalion, 35th Infantry had suffered 178 battle and non-battle casualties. It was currently operating at 67% strength with a full complement of commanders and primary staff. Of the nine platoon leaders in the rifle companies, only three had survived the counterattack.

The 3d Battalion, 35th Infantry had been the battalion left in contact when TF THUNDER began its withdrawal back down the mountains. Initial combat losses within the battalion had been light. However, in a determined effort to cover the withdrawal of the other two battalions, the 3d battalion had suffered 150 known casualties and still could not account for another forty soldiers after their exfiltration back to Tara during the

night. Although 65% of the battalion was available to conduct combat operations, many complete fire teams and squads were among the missing and were expected to eventually link up with friendly forces.

TF BRADLEY, the heavy task force from TF THUNDER, had set up a defensive strongpoint in the lowlands north of Tara. Initially they had suffered the destruction of a platoon of four Bradley Fighting Vehicles. After receiving support from the 3d MEB, fighter aircraft from the USS Halsey, and the DRB-1 direct support artillery battalion, TF BRADLEY was able to defeat the counterattacking BTR battalion from the amphibious assault brigade. The forward support battalion, direct support artillery battalion and remaining support elements of the DRB-1 package remained essentially 100 % effective.

Altogether, rifleman strength within the 1st, 2d, and 3d battalions of TF THUNDER were at 65%, 67%, and 64% strength, respectively. The brigade was now under the command of the brigade executive officer. The brigade commander had been evacuated during the night battle after being severely wounded by mortar fire during a visit with one of his battalion commanders. Additionally, one battalion commander was killed and twenty-one other officers were casualties during the Battle of Tara Valley.

The brigade, division, and JTF level commanders were now faced with a difficult predicament. Phase III of the campaign was just beginning. The remaining ready brigades from both Fort Loveland and Dimmick Barracks were now on the island and were preparing to move into zone.

However, the fate of TF THUNDER was uncertain. Never had the Army suffered such high casualties during one of its force projection operations in the nineties. The acting TF THUNDER commander reported to the division commander that even after immediate and deliberate reorganization, the infantry battalions were still at less than 65% strength.

Additionally, morale was extremely low. For most of the soldiers, the Battle of Tara Valley was their first exposure to combat. Few of the men were willing to carry on with the campaign. The men were exhausted and feeling sorry for themselves. Most of the young soldiers had expected a quick and decisive victory similar to those which occurred with Operations Just Cause and Desert Storm. The men of TF THUNDER grieved over the loss of their lost comrades. They wondered what kind of reception they would receive back at Dimmick Barracks. Most soldiers openly admitted they feared going back into another battle.

After being briefed on the status of TF THUNDER, the JTF commander assessed that some form of reconstitution was necessary. His assessment was predicated upon his personal knowledge of the situation and the initial assessments of his coordinating staff. It was also based upon the unbiased opinion of his Inspector General (IG) whom he had sent to TAA Austin to assess the status TF THUNDER.

However, The JTF commander was concerned about the impact regenerating TF THUNDER would have on the operational situation and tempo of the campaign. He directed his staff to identify several feasible courses of actions on what to do with TF THUNDER. In his guidance to his staff, the JTF commander directed that innovative options be explored which would rapidly restore the combat effectiveness of TF THUNDER, the 26th Infantry Division, and JTF LIGHTNING. Additionally, he wanted to know whether the JTF had sufficient combat power to attain a decisive victory during the remainder of the campaign even without TF THUNDER. He also wanted the staff to consider resource availability and the impact of each course of action on command and control. He requested a course of action briefing in two hours, then departed by helicopter to personally asses the status of TF THUNDER and visit with its soldiers.

Scenario Summary

The force projection scenario detailed above is representative of a potential Army operation for the nineties. The circumstances of TF THUNDER require some type of reconstitution. In the scenario, the JTF commander assessed that regeneration of TF THUNDER was necessary and directed his staff to identify feasible courses of action that would restore the combat effectiveness of the attrited elements of the JTF. The options which the JTF staff identified, as well as a detailed analysis and comparison of the options, are presented as part of the following chapter.

CHAPTER SEVEN

ANALYSIS, CONCLUSIONS, AND RECOMMENDATIONS

General

The final chapter of this thesis accomplishes three objectives. The first objective is to provide general analysis and conclusions based on the research of Army warfighting doctrine, reconstitution doctrine, and the force projection scenario. The second objective is to provide general conclusions based on the research regarding the hypothesis and research questions. The final objective is to provide recommendations for action based on the conclusions, as well as providing recommendations for further study.

Analysis and Conclusions

Warfighting Doctrine

The research of this thesis has substantiated the fundamental concepts represented by the DDVM (Figure 1). This model has provided the framework for the methodology of this study. Based upon the historical review of the Army's warfighting doctrine, it is clearly evident that major changes in the strategic environment prompted the Army to evaluate the way in which it conducts operations. When warranted, the Army changed its warfighting doctrine because of these changes in the strategic environment. Certainly there are other technological, economic and social factors which impact on the development of doctrine. However, the focus of this thesis was intentionally limited to consider primarily the combined impact of political changes in the world situation.

Using WWII as a beginning reference point, the research explored the Army's warfighting doctrine through 1993 in light of changes in the strategic environment. In WWII, the US was involved in a "global" war across multiple theaters and against multiple threats which were predicated upon differing ideologies. The application of Army doctrine was dynamic and adjusted to the strategic environment. Army operations were clearly theater dependent. Just as the US operated in a combined role through alliances and a coalition strategy, the Army participated as part of a joint, multi-service team. Army operations were characterized by the use of combined arms with an emphasis on the offense.

The strategic environment that followed WWII was characterized by the formation of a Bi-polar world dominated by the US and the Soviet Union. The advent of atomic munitions caused an evaluation of the necessity of a large standing army in the US. However, doctrine changed little following WWII. Despite a shift in emphasis from offense to defense, Army doctrine was oriented on fighting WWII again on the plains of Europe.

In the midst of the Cold War, the political ideologies of communism and democracy clashed in a "limited" conflict in Korea. The US response to North Korean invasion was to commit relatively unprepared Army forces in an attempt to contain the spread of communism. Army operations fluctuated from offense to defense and from mobile to static. By 1953, the Army was essentially operating under the same doctrine as during WWII, with an increased emphasis on attrition warfare.

After Korea, changes in the strategic environment had significant impact on Army doctrine. While still threatening the European continent, the Soviet Union set out to expand the influence of communism throughout the world by supporting "wars of liberation." The US and Soviet Union were involved in a nuclear stalemate. Army doctrine adjusted through changes in organization and focus on response to regional

conflicts. Counterinsurgency doctrine emerged early in the Vietnam War. However, Army doctrine shifted in the late sixties back to an emphasis on conventional operations as technological advances changed the pace and lethality of warfare.

One of the largest changes in Army doctrine occurred following the Vietnam War. During US involvement in Vietnam, the Soviet Union was building up its warmaking arsenal. US attention again focused on Europe and potential nuclear/conventional war with the Warsaw Pact nations. Army doctrine adjusted to this change in the strategic environment through the development of its Active Defense doctrine. Both Active Defense doctrine and its successor, AirLand Battle doctrine reaffirmed the importance of the operational level of war. The joint and combined nature of US warfare increased in significance as a way of concentrating force against a numerically superior enemy. There was clearly a doctrinal emphasis on fighting upon a linear battlefield in Europe.

When the Cold War ended, the world was no longer Bi-polar. Regional threats emerged and created regional instability. The Army necessarily changed its warfighting doctrine to accommodate the sweeping changes taking place. Army doctrine called for a force projection Army which could respond to regional contingencies. The scope of possible Army operations expanded significantly.

The research clearly affirmed the close relationship between changes in the strategic environment and changes in Army warfighting doctrine as reflected in the DDVM. However, along with the major changes in warfighting doctrine were some significant threads of continuity. For example, even as Army doctrine shifted focus from conventional war to nuclear war to counterinsurgency back to conventional-nuclear war, the most likely war scenario remained constant. The threat remained the Soviet Union and the battlefield remained Europe. With the end of the Cold War this most likely war

scenario has changed. The threat became defined in terms of ethnic, economic, cultural, or religious diversity and the battlefield became defined in terms of regional interests.

Reconstitution Doctrine

An analysis of Army reconstitution doctrine revealed a correlative relationship between changes in the strategic environment, warfighting doctrine, and reconstitution doctrine. Using WWII as a beginning reference point, the research explored the Army's reconstitution doctrine through 1993 in light of changes in the Army warfighting doctrine. As suggested by the DDVM, when major changes occurred in Army warfighting doctrine, there was a corresponding reevaluation of reconstitution doctrine. When warranted, reconstitution doctrine changed because of its inherent relationship with warfighting doctrine.

The research discovered formal reconstitution doctrine in WWII was represented by strategic individual replacement operations. These replacement operations were actually a lengthy process of getting additional men and equipment to attrited combat units. Minor adjustments were made to this doctrine depending upon the theater involved. The Army even experimented with package and unit replacement operations during the course of the war. However, when replacement operations stabilized, they had a marked resemblance to those used during WWI.

Although there were minimal changes during the Korean War, Army reconstitution doctrine changed little until the US became involved in Vietnam. In the early sixties, when US warfighting doctrine focused on counterinsurgency operations, replacement operations centered around the rotation of individual soldiers. Army warfighting doctrine began to focus on conventional combat operations as US involvement increased in Vietnam. During this period, reconstitution was accomplished through a variety of methods. The Army continued its individual replacement system

through the implementation of a twelve month rotation policy. The Army also rotated entire units into and out of the theater. Within the theater, units rotated from positions in direct contact to positions where they could reconstitute and recuperate before engaging in battle again.

When Active Defense and AirLand Battle doctrine emerged following the Vietnam War, a major change occurred again in reconstitution doctrine. A clear shift was made to regenerate combat power through resource intensive reconstitution operations from within a mature theater. Not only was there increased emphasis on reconstituting combat power through the replenishment of equipment and personnel, but there was a rediscovered emphasis on the importance of reestablishing the combat effectiveness of an attrited unit. Studies published in documents such as the CSI and BDM reports on reconstitution, prompted senior Army leaders to recognize the impact that AirLand Battle doctrine would have on reconstitution doctrine. Future combat was expected to be fast-paced, highly lethal, and three-dimensional such as during the 1973 Arab-Israeli War. To reestablish combat effectiveness, attrited units would need not only equipment and personnel, but time to rest, grieve, familiarize with SOPs, and train before entering battle again.

With the end of the Cold War, the Army recognized the need to again change its warfighting doctrine. While still operating under AirLand Battle doctrine, but with an eye on future warfighting doctrine, the Army successfully conducted combat operations during Operation Desert Storm (ODS). ODS identified a unique way of planning for reconstitution. The distinction between tactical level and operational level reconstitution was blurred. Strategic mobility during ODS allowed the Army to pre-position crews, small units, and individuals within the theater in anticipation of combat losses. Likewise war reserve stocks were strategically brought into the theater.

Liberal use was made of these war reserves to create an equipment replacement pool. Individuals, crews, and units were matched up with equipment in provisional replacement units to form operational reconstitution assets.

One year after ODS, the Army published its first official reconstitution doctrinal field manual. Yet, the new reconstitution doctrine did not reflect the profound changes in reconstitution planning identified during CDS. The new doctrine still assumed a Cold War scenario in which Army operations would be conducted in a mature theater by forward-deployed forces with the availability of pre-positioned war reserves.

When the Army published its newest warfighting doctrine in 1993 with its force projection orientation, the validity of current Army reconstitution doctrine became uncertain. Because of this uncertainty, this thesis presented the force projection scenario in Chapter Six to determine if the Army will conduct reconstitution differently in the nineties than it did during the Cold War. As the DDVM implies, the scenario served the purpose of investigating the validity of the current reconstitution doctrine.

Scenario Analysis

Options

Based on the scenario in Chapter Six, the JTF staff identified four regeneration options for TF THUNDER. The four options are based on the staff's initial assessments, the observations of the JTF IG, and the JTF Commander's personal assessment and guidance to the staff concerning regeneration criteria. The four options are the following:

Option # 1 (Redeploy). Redeploy the light infantry battalions of TF THUNDER back to Hawaii. Losses within those infantry battalions would be replenished by surging the normal peacetime replacement system. TF BRADLEY and the remaining divisional units from TF THUNDER would return to 26th Infantry

Division control. Modify the JTF task organization and scheme of maneuver and proceed with the campaign.

Option # 2 (Replace). Same as Option # 1 except the replacement brigade in Guam would be immediately sent forward and attached to the 26th Infantry Division as part of TF THUNDER.

Option # 3 (Individual replacement). TF THUNDER remains in theater and retains unit and sub-unit cadre. Fill the infantry battalions by surging individual replacements from CONUS until they are at or near authorized strength.

Option # 4 (Package replacement). TF THUNDER remains in theater and retains unit and sub-unit cadre. Replace grossly understrength platoons or companies with intact platoons or companies from the replacement brigade in Guam.

Criteria

The Deputy Commanding General (DCG) of the 21st Airborne Corps, acting as the JTF Chief of Staff, directed the staff to analyze the advantages and disadvantages of each course of action. Based on the JTF Commander's guidance on regeneration criteria, the DCG identified the following five criteria:

Tempo. How will the timing of the campaign plan be affected? Will the scheme of maneuver be severely disrupted?

Combat Power. How will the elements of leadership, firepower, maneuver and protection be affected? Will the JTF maintain overwhelming combat power.

Ease of Execution. How efficient is the use of available resources? How available are the necessary resources?

Effectiveness. What is the impact of the course of action on the combat effectiveness of TF THUNDER? Which of the tangible and intangible factors that affect combat effectiveness are considered?

Command and Control. How is the command and control structure of TF THUNDER affected? How well is unity of command and control promoted within JTF LIGHTNING?

Course of Action Analysis and Comparison

The JTF staff analyzed the advantages and disadvantages of each course of action and compared them with due consideration of the regeneration criteria above. They presented their analysis and comparison to the DCG along with a decision matrix that summarized the results (Figure 10). The staff's analysis and comparison of the courses of action are highlighted below:

Option # 1 (Redeploy). This option causes minimal disruption to the timing of the campaign plan. The JTF scheme of maneuver would be moderately affected. The 26th Infantry Division's scheme of maneuver would be significantly affected since they would only have two-thirds of their original combat power. The 26th Infantry Division would need to take less than 24 hours to assimilate the non-redeploying divisional units back into their parent organizations.

Without regenerating TF THUNDER within the theater, the JTF would no longer have overwhelming combat power. However, the JTF would still have sufficient combat power to accomplish its operational objectives. Although the BPDF had sustained casualties during the battle, their casualties were relatively light compared to those inflicted upon TF THUNDER. Consequently, the potential for JTF LIGHTNING forces to receive additional casualties would be higher because the corresponding reduction in combat power ratios against the BPDF.

This option is the easiest to execute. It uses the fewest logistical resources and allows the 21st Airborne Corps COSCOM to support the campaign with minimal disruption. In fact, since the support elements of TF THUNDER would remain in

theater, the remaining two brigades of the 26th Infantry Division would likely receive more responsive support. The staff analyzed the numerous strategic lift assets scheduled to arrive in the OTO with logistics over the next seventy-two hours. They determined that they could maximize the effective use of these strategic lift assets by back-hauling the infantry soldiers of TF THUNDER to Hawaii.

TF THUNDER would remain combat ineffective until such time as it was regenerated back at Dimmick Barracks. This option has the greatest long term negative impact on the morale of the brigade. The soldiers would not return as part of the victorious 26th Infantry Division. The brigade would be regarded in the history books, and by newly assigned soldiers as the brigade that was routed in Tara Valley.

Command and control is negatively affected by this option also. The returning brigade would continue to operate with a reduced command and control structure until fully regenerated in Hawaii. Operation orders for both the 26th Infantry Division and JTF LIGHTNING would require revision because of the required changes to the task organization affecting the scheme of maneuver.

Option #2 (Replace). It would require at least twenty-four hours for the replacement brigade to close on the island from its assembly area in Guam. The JTF would be able to continue with its campaign schedule with only a small revision. Despite necessary changes in the schemes of maneuver for both the division and JTF, this option causes the least disruption to the overall campaign. The replacement brigade was already acclimatized, had exchanged SOPs and liaisons, and had conducted reconnaissance along with TF THUNDER prior to hostilities. The staff assessed that the replacement brigade could be readily assimilated into the operation upon arrival.

This option maximizes the combat power of the JTF more than any other option. The replacement brigade is a fully combat ready brigade. Although desirable,

the introduction of the replacement brigade into the campaign is not necessary for achieving victory.

There is sufficient intra-theater lift (C-130/C-17) available to transport the replacement brigade to any of the Jaman airfields if required by an adjustment of the scheme of maneuver. The remnants of TF THUNDER would return to Hawaii as described in Option # 1. No COSCOM resources would be committed to regeneration activities. COSCOM support to the JTF ground forces would remain uninterrupted.

The impact of this option on the combat effectiveness of TF THUNDER is similar to the impact in Option # 1. However, the staff personnel officer felt there were potential long-term adverse effects with this option. In his analysis he surmised that the survivors of TF THUNDER might become jealous of the soldiers of the replacement brigade who would finish the campaign in their stead. Because of limited number of light infantry soldiers in the Army of the nineties, the personnel officer insisted that, over time, the Army's permanent-change-of-station assignment policy would cause the soldiers of both brigades to eventually serve in similar units. Although these potential feelings of jealousy would have no impact on TROPIC STRIKE, they could impact on unit cohesion in later years.

This option provides the best command and control continuity throughout the campaign. Because the command post (CP) of the replacement brigade would need to displace from Guam, the staff anticipated a minor, temporary disruption in command and control. This disruption could be minimized by the deployment of a forward CP to Jaman to control the arrival of the deploying brigade. Upon closure of the brigade onto the island, command and control functions would stabilize. The liaisons established with the JTF before hostilities would reduce any degradation of command and control during Phase III of the campaign.

Option # 3 (Individual replacement). This option has the greatest potential to negatively affect the tempo of the campaign. The staff estimated that it would take up to thirty days to identify, transport and integrate the individual replacements into the remaining structure of TF THUNDER. A thirty day delay would require a major revision of the campaign plan if TF THUNDER was to used in the same capacity as prior to the Battle of Tara Valley. This would temporarily wrest the initiative away from JTF LIGHTNING. However, the operations officer assessed there was still adequate combat power available to continue with the rest of the campaign with only two of the three light infantry brigades.

The combat power of TF THUNDER would gradually increase over time as replacements arrived in theater. The decisive combat operations of the campaign could potentially be completed by the time the brigade was fully regenerated. The brigade could be used during operations other than war during in Phase V (counterinsurgency, counterdrug, peacekeeping) because of its intimate knowledge of the situation during the regeneration period. As companies and battalions are regenerated, they could be given missions in the JTF rear area. This would provide the JTF commander with the freedom of action to make more efficient use of combat forces that had been given missions as a part of a Tactical Combat Force (TCF) or reserve.

The individual replacement option is the most difficult option to regenerate TF THUNDER. Supporting CINCs (primarily FORSCOM) would need to identify soldiers from the CONUS training base or from CONUS installations to serve as replacements. PERSCOM would need to closely monitor requirements and reassignment of key leaders and soldiers. Additional strategic lift assets would have to be designated to carry the replacements into theater.

This option has both positive and negative aspects of effectiveness. The surviving members of TF THUNDER would provide a nucleus of soldiers with a

common shared combat experience. These survivors would maintain pride in their unit. Replacements would be assimilated into cohesive groups with a common bond. However, this mental healing process would take time. Even though the regenerated platoons and companies may display outward signs of cohesiveness, their reduced level of tactical training would still render them temporarily combat ineffective. The staff estimated it would take at least sixty days of intense training to restore the brigade to the high level of combat effectiveness that TF THUNDER had before the battle.

Since the surviving key leaders would remain in the brigade, some command and control would be maintained. As acting leaders are replaced, a degradation in command and control would take place. This situation would eventually dissipate as the replacements learned unit SOPs and developed working relationships with supporting units. The effectiveness of the brigade's command and control structure would gradually improve during the training period required to fully restore the combat effectiveness of the brigade. However, the staff's analysis concluded this option would produce the most disruptive effects upon the existing command and control structure and effectiveness of the brigade, division, and JTF.

Option # 4 (Package replacement). Of the three options that require regeneration of TF THUNDER on the island, Option # 4 is this quickest to execute. It would take less time to deploy platoon or company-sized packages from Guam to fall in on the already existing cadre. However, it is unlikely that the brigade as a whole would be able to rejoin the campaign as quickly as the combat ready replacement brigade in Option # 2 (Replace). The staff estimated that it would take at least forty-eight hours to integrate the replacement packages into the brigade such that it could conduct brigade level operations as part of the division and JTF scheme of maneuver.

Combat power could be quickly regenerated as the packages linked up with the cadre in TAA Austin (regeneration site) since fully-trained platoon and company-sized

packages would be sent forward from Guam. The mountainous jungle terrain of the island favored the employment of the light infantry soldiers in small-unit formations. Arriving packages could immediately be used in decentralized small-unit operations until the battalion and brigade staffs were fully operational.

Logistically, this option is simple to execute. Intra-theater lift assets could transport the small-unit package replacements directly to the airfield at Pontiak nearby TAA Austin. If required, utility or medium-lift helicopters could then transport the platoons or companies directly to forward locations to be integrated into the scheme of maneuver. Another advantage of using packages is that the JTF commander would still maintain an operational reserve with the remainder of the replacement brigade on Guam.

Because the combat-experienced cadre would remain in the brigade, this option shares many of the effectiveness advantages of Option # 3 (Individual replacement). However, there are a few disadvantages. At the small-unit level, the new packages would be highly effective. The combat effectiveness of the individual battalions and the brigade as a whole would increase in only a matter of days. As staff coordination takes place, the battalions and brigade will become capable of conducting collective unit operations. They should achieve this level of effectiveness within forty-eight hours.

The placement of fresh platoon or company-sized units into the brigade would facilitate the rapid development of a command and control structure. This option is second only to Option # 2 (Replace) with regard to reestablishing effective command and control within JTF LIGHTNING.

A major area of concern for the staff was the impact that Option # 4 would have on the remainder of the replacement brigade in Guam. The staff firmly believed the replacement brigade commander should have an active role in determining how to divide up his brigade once the package replacement requirements were identified. The effect of Option # 4 on the replacement brigade was also dependent upon how the JTF

Commander wanted to use the replacement brigade after the replacement packages were reassigned.

The staff identified two primary methods that could be used to provide the requisite number of replacement packages. First, one battalion would be selected as the primary donor. If additional small-unit packages were needed, a second battalion would provide packages as necessary. Except for the disruptive effect upon the primary donor battalion, this option minimizes disruption of unit cohesion within most of the replacement brigade. A high degree of command and control would still exist in the replacement brigade; and it could still retain its role as smaller, two battalion-sized theater reserve until regenerated itself.

A second option for the replacement brigade would be to equally distribute the replacement package requirements across the battalions. The three battalions would be reduced but still combat effective. Command and control structures would be maintained. The brigade would potentially need to assume a role with less likelihood of direct combat because of its overall reduction of available combat power. This option would also require eventual regeneration of the replacement brigade.

The Decision

When the JTF commander returned from his visit to the TF THUNDER assembly area, the staff presented their course of action briefing to him. Following the discussion of the advantages and disadvantages of each course of action, the DCG presented the decision matrix to the commander with a recommendation to execute Option # 2 (Replace). His rationale was that Option # 2 provided the JTF with the maximum combat power at the earliest possible point in the campaign. The DCG reminded the commander that the scheme of maneuver would only be minimally

disrupted and the brigade would arrive on the island ready to fight with a command and control structure already intact .

The commander acknowledged the rationale for Option # 2. However, after careful consideration, he chose Option # 4 (Package Replacement). The commander felt, despite the temporary delay caused by Option # 4, the combined effects of all of the combat power available to the JTF would still produce a decisive victory with minimal additional casualties. He was particularly concerned about the long term effects resulting from the complete, immediate removal of TF THUNDER from the theater. The men of the brigade had fought hard and valorously and deserved to be a part of a winning effort. Although the unit morale was currently low, he concluded that the long-term impact on the unit morale, esprit, and cohesion was a major consideration in this tough decision. By integrating platoon packages of fresh soldiers into the brigade, the survivors of TF THUNDER would soon be able get rested, rejoin the fight and return home as part of a winning team.

The Commander directed the staff to execute Option # 4. He alerted the replacement brigade commander that the remainder of his brigade would assume a TCF mission in Jaman. The JTF Commander gave the replacement brigade commander the freedom to decide how to provide the requisite number of replacement packages commensurate with the new TCF mission.

Conclusions for the 1990s

"The largest challenge to world peace,1989-2025, is Regional Ethnic Conflict...."¹

The end of the Cold War has caused profound changes in the strategic environment. It has caused a reevaluation of US national security strategy. As a result, the US has reevaluated how it employs the elements of national power (diplomatic, informational, economic and military). There has been a paradigm shift away from a Bipolar world to a world of complicated regional threats. Accordingly, the US Army has recognized this paradigm shift and its implications and has significantly changed its basic warfighting doctrine.

The research concludes that the hypothesis of this thesis is correct: Because of changes in the Army's warfighting doctrine, the Army will conduct reconstitution differently in the nineties than it did during the Cold War.

This conclusion was drawn from three different aspects of the research. First, as discussed above, historically significant changes in Army warfighting doctrine have resulted in corresponding changes in reconstitution doctrine. This is a logical progression since the Army's warfighting doctrine is a "keystone" doctrine upon which all other Army doctrine must be predicated.²

Secondly, actions taken during ODS in anticipation of the need to conduct large-scale regeneration were markedly different than actions described in the doctrinal reconstitution publications. ODS served as a watershed event in the history of Army warfighting doctrine. ODS validated AirLand Battle as a way of conducting operations.³ However, ODS was a contingency operation that reinforced the notion that Army operations in the nineties would be different than the during the Cold War. Likewise, because the Army during ODS planned reconstitution differently than in the past, it is a logical conclusion that Army will conduct reconstitution differently in the future as well.

Thirdly, wargaming of a contingency operation scenario tested current Army reconstitution doctrine and found it to be partially invalid. It follows that the force projection Army of the nineties will conduct reconstitution differently in the future if

engaged in a contingency operation similar to TROPIC STRIKE. The DDVM suggests, in the absence of an actual operation, scenario wargaming, simulations, or training exercises are viable methods of attempting to validate doctrine.

Chapter Six of this thesis served the purpose of partially invalidating the current reconstitution doctrine. Most of the current doctrine remains valid. However, the current doctrine assumes the availability of pre-positioned war reserve stocks and a robust replacement system. It also assumes that combat operations will take place in a mature theater with an existing infrastructure. Under the current doctrine, incremental regeneration of a brigade-sized force was a viable option because of the availability of personnel, equipment, and time to restore combat effectiveness.

However, in the nineties, the Army will likely participate in operations of a different nature. Army force projection operations will achieve quick, decisive outcomes. They will be characterized by rapid projection of combat forces from CONUS locations in response to regional crises in myriad locations. There is a high likelihood that Army forces will operate in immature theaters that lack developed infrastructures or pre-positioned war reserve stocks. In such a contingencies, the Army will not be able to regenerate the combat effectiveness of combat forces as prescribed in the current reconstitution doctrine.

The Difference in the Nineties

The intent of the primary research question for this thesis was to determine whether the Army will conduct reconstitution differently in the 1990s than it did in the Cold War. The discussion above regarding the hypothesis affirms that the Army will indeed conduct reconstitution differently in the nineties.

Exactly how the Army will conduct reconstitution in the nineties will vary from scenario to scenario. Under the Army's new warfighting doctrine, the Army

expects to achieve decisive victory through the application of overwhelming combat power with a minimum of casualties. The four options presented to the JTF LIGHTNING commander in Chapter Six are viable options if the Army is called upon to operate in a similar force projection scenario. The first option includes redeployment of the attrited unit back to its home station to undergo reconstitution. This option is especially feasible if there is clearly overwhelming combat power still available within theater to rapidly achieve decisive victory.

It is also feasible to conduct large-scale whole-unit replacement, complete with intact chains of command and support structures. The capability of US strategic air mobility assets may even preclude the need for the replacement organization to be located in the theater. Other variations include pre-positioning whole-unit replacements on ships or at intermediate staging bases within theater. Depending upon the operational and tactical situation, a tactical reserve, or a unit designated to provide port security could be used as a replacement unit for a badly attrited unit. The attrited unit would be removed from combat and the replacement unit would retain its own unit colors.

Another option would be to provide the attrited unit with a rapid influx of individual replacements. Although this option was undesirable in the TROPIC LIGHTNING scenario, it may be feasible during long-duration operations other than war. This option is also feasible in protracted scenarios that place Army forces in a mature theater with pre-positioned war reserve stocks.

The option chosen by the JTF LIGHTNING commander is a very appealing reconstitution option for the nineties. Whether the situation calls for reconstitution of light infantry, mechanized infantry, armor, or even lower density specialized units, the integration of small-unit replacement packages into an moderately attrited organization is a feasible reconstitution option. This is especially true if the circumstances require immediate integration of the regenerated unit back into the scheme of maneuver.

There are numerous other ways to facilitate reconstitution in the nineties that planners might consider. ODS demonstrated that, when available, Army war reserves are valuable assets for reconstitution. Theater reserve stocks, afloat pre-positioned stocks, and even CONUS reserve stocks could be identified for link up with personnel packages and individual key leader replacements. This ad hoc replacement organization would be trained and equipped to provide platoon, company, battalion or brigade-sized unit replacements. This concept is the equivalent of operational level planning for WSRO, similar to that which occurred for ODS. Although planned at the operational level, strategic lift assets would bring the parts together from different worldwide locations.

In the 1990s, a corps headquarters will likely be a JTF or ARFOR headquarters. If so, the decision to regenerate a brigade (two levels up) may, in fact, be an operational decision vice a tactical decision.

The maturity of the theater certainly impacts on the options available for reconstitution. A lengthy prelude to war may facilitate turning an immature theater into a mature theater prior to combat such as occurred during ODS. Sufficient resources may then be pre-positioned so that reconstitution would resemble Cold War reconstitution activities. Immature theaters in a short-notice contingency may require use of LOTS (Logistics Over The Shore) in order to enter heavy weapon systems into an area of operations that lacks a developed air or sea port.

Certainly the impact of the new warfighting doctrine as a result of changes in the strategic environment will require commanders, planners, and operators to develop innovative solutions to the reconstitution challenges in the nineties.

Recommendations

There are several recommendations that emerge as a result of this study. First, the current version of FM 100-9 should be updated. The current edition, although

published in 1992 after the end of the Cold War, still reflects the traditional concept of reconstitution of forward-deployed forces operating under the AirLand Battle doctrine. Certainly doctrine should reflect unconstrained resources, but the reality of the 90s is that the Army will operate under significant resource constraints, be smaller, CONUS-based, and force projection-oriented. Much more attention should be given to preparation for reconstitution in an immature theater.

The focus of the current FM 100-9, is on regeneration of battalions and brigades at the tactical level. However, US strategic mobility in the nineties will likely blend operational and tactical levels of activities like reconstitution. Revision of Army reconstitution doctrine should address the operational level implications of planning a tactical level unit regeneration more so than the brief treatment of this subject in Appendix A, FM 100-9.⁴

As opposed to including an appendix on reconstitution during contingency operations, the theme of the manual should reflect what commanders and planners need to know about reconstitution in the most likely scenario for Army operations. Considerations of reconstitution during combat and non-combat operations should be the norm. A logical appendix might address reconstitution during operations in the traditional sense assuming a mature theater and forward-deployed forces.

Many of the technical aspects of the manual remain valid. Definitions of reconstitution, reorganization, and regeneration are still valid. The reconstitution process for a modern scenario will likely be different and should reflect some innovative options such as those discussed in the conclusions above. Regeneration principles are generally still valid. The trigger point of 40 percent personnel casualties and 30 percent weapon system losses may be too high for the nineties.⁵ Planners must always consider worst case scenarios, but must bear in mind the American public, and top military leadership expect minimal casualties for operations in the nineties.

Doctrine is meant to be a guide for action rather than a way of action. It should be descriptive, not prescriptive.⁶ Because of the myriad scenarios and options for reconstitution in the 1990s, specifics tactics, techniques and procedures should be developed by TRADOC and the different branch schools.

Additionally, reconstitution-related instruction at the DOD service schools such as the command and staff colleges, School of Advanced Military Studies, and senior service colleges should reflect the paradigm shift in the way in which the US military expects to be used in the post-Cold War world. Commanders, planners, and operators must continue to develop innovative ideas to difficult situations bearing in mind the real-world constraints on future operations.

The highest levels of military leadership should continue to support programs to upgrade theater war reserves, strategic mobility, and pre-positioning of equipment for use during contingency operations. Commanders and planners must develop tactics, techniques and procedures that are adaptable to short-notice contingency operations. Likewise unified command staff planners must continue to update OPLANs and CONPLANs and ask the tough questions like: How will we accommodate mass casualties when mobile and floating hospitals are not yet in the region, the civil reserve air fleet (CRAF) has not been activated, and the theater is immature early in the operation? What do we do the next time there is another incident like the Gander Tragedy, Beirut bombing, or scud missile attack on a barracks of soldiers during ODS? How will we reconstitute highly-specialized units?

Recommendations for Further Study

This study limited the validation of the current reconstitution doctrine to an island contingency operation involving light forces. Future studies should consider other scenarios as well. Possible scenarios include using heavy forces in either a mature or

immature theater. Also, scenarios should be evaluated to reflect simultaneous heavy/light reconstitution requirements. Another unique scenario for consideration is one in which multiple regional conflicts occur simultaneously to stress the strategic mobility assets of the US.

The DDVM is applicable to other subordinate Army doctrine also. This study considered only reconstitution doctrine within the model, but clearly changes in the strategic environment and Army warfighting doctrine have far reaching effects on much of the other Army doctrine as well.

Future study should also include consideration of the reconstitution option for low-density, highly-specialized units. These units are just as susceptible to lethal fires in a non-linear future battlefield.

The psychological impact of replacement operations involving package replacements is worthy of study as well. Studies should address the impact of reconstitution operations on the inbound replacements, the remaining survivors of the unit being reconstituted, and the unit that provided the package replacements.

Finally, unexpected peacetime activities or operations other than war may require some form of unique reconstitution. A CONUS-based Army will necessarily have to move by strategic airlift and sealift to reposition forces around the world for peacekeeping operations, humanitarian service, disaster relief or demonstrations and shows of force. Consideration must be made of the possibility of military air disaster such as occurred with the Gander Tragedy and the processes to regenerate the combat power of the affected unit.

ENDNOTES

Chapter One

¹Paul H. Herbert, Deciding What has to be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations Leavenworth Papers No. 16 (Fort Leavenworth: Combat Studies Institute, 1988), 5. (Cited hereafter as Deciding What has to be Done.)

²US Army Training and Doctrine Command, "FM 100-5, Operations," Final Draft, Unedited (Fort Monroe: US Army Training and Doctrine Command, 1993), 2-18. (Cited hereafter as FM 100-5.)

³US Army, FM 100-9, Reconstitution, (Washington, DC: Department of the Army, 1992), i. (Cited hereafter as FM 100-9.)

⁴FM 100-5 (1993), 1-1.

⁵Michael P. W. Stone and Gordon R. Sullivan, The United States Army Posture Statement FY93 (Washington, DC: Department of the Army, 1992), 28.

⁶The White House, National Security Strategy of the United States, (Washington, DC: Government Printing Office, 1991), 1.

⁷US Department of Defense, Annual Report to the President and Congress, (Washington, DC: US Government Printing Office, 1993), 5.

⁸FM 100-5 (1993), 1-6.

⁹Ibid., 3-1.

¹⁰Ibid.

¹¹Ibid.

¹²Association of the United States Army, "Chief Of Staff Discusses Today's Changing Army," AUSA News, edited by Peter F. Murphy, Jr. 15-5 (April 1993): 1.

¹³FM 100-5 (1993), 1-5.

¹⁴Armed Forces Staff College, AFSC Pub 1, The Joint Staff Officer's Guide 1991, (Norfolk: Armed Forces Staff College, 1991), 1-8.

¹⁵FM 100-5 (1993),1-6.

¹⁶Ibid., 8-1.

¹⁷Ibid., 9-14.

¹⁸Ibid., 1-1.

¹⁹Ibid., Glossary - 4.

²⁰Ibid., 3-1.

²¹FM 100-9, 1-1.

²²Ibid., 1-2.

²³Ibid., 8-19.

²⁴Ibid., 1-2.

²⁵Ibid.

²⁶Ibid.

²⁷Ibid.

²⁸Ibid., 4-1.

²⁹Stone, 65.

³⁰G. H. Turbiville et al., New Approaches to Reconstitution in High Intensity Conflict on the Modern Battlefield BDM/W-79-800-TR (McLean: BDM Corporation, 1980), 1-1. (Cited hereafter as BDM report.)

³¹Robert F. Dorr, Desert Shield, The Build Up: The Complete Story (Osceola: Motorbooks International, 1991), 79.

Chapter Two

¹G. H. Turbiville et al., New Approaches to Reconstitution in High Intensity Conflict on the Modern Battlefield, BDM/W-79-800-TR (McLean, VA: BDM Corporation, 1980), iii. (Cited hereafter as BDM report.)

²Ibid., V-44.

³Ibid.

⁴Ibid., I-11.

⁵Ibid., VII-21.

⁶Ibid., X-21.

⁷Ibid., I-1.

⁸Edward J. Drea, Unit Reconstitution--A Historical Perspective, CSI Report No. 3 (Fort Leavenworth: Combat Studies Institute, US Army Command and General Staff College, 1983), 44. (Cited hereafter as CSI report.)

⁹Nathan J. Power, "Reconstitution: Leadership Methods and Considerations," (Individual Study Project, School of Advanced Military Studies, US Army Command and General Staff College, 1987), 38.

¹⁰Ibid.

¹¹Ibid., 28.

¹²Thomas E. Johnson, "Reconstitution: A Combat Force Multiplier," (Individual Study Project, US Army War College, 1989), 5.

¹³Ibid., 5.

¹⁴James C. Hinebaugh, Jr., "Reconstitution--Winning Beyond the First Battle," Individual Study Project, US Army War College, 1988), ii.

¹⁵Curtis N. Marsh, "Reconstitution," Military Review 67 (January 1987): 59.

¹⁶Charles W. Horner, "Reconstituting a Combat Force," Army Logistician, 18-4 (July-August 1986): 2.

¹⁷Ibid., 5.

Chapter Three

¹US Army Command and General Staff College, ST 100-9, The Command Estimate Process (Fort Leavenworth: US Army Command and General Staff College, 1992), 4-1.

²Ibid., 4-6.

³Ibid., 4-11.

Chapter Four

¹Christopher R. Gabel, "Doctrine," in Combined Arms in Battle Since 1939, ed. Roger J. Spiller, (Fort Leavenworth: US Army Command and General Staff College Press, 1992), 91.

²Ibid.

³Robert A. Doughty, The Evolution of US Army Tactical Doctrine, 1946-76, Leavenworth Papers No. 1 (Fort Leavenworth: Combat Studies Institute, US Army Command and General Staff College, 1979), 2.

⁴Jonathan M. House, Toward Combined Arms Warfare: A Survey of 20th-Century Tactics, Doctrine, and Organization (Fort Leavenworth: Combat Studies Institute, 1984), 105.

⁵Gabel, 92.

⁶Ibid., 93.

⁷Russell F. Weigley, The American Way of War: A History of United States Military Strategy and Policy (Bloomington: Indiana University Press, 1973), 325.

⁸House, 79.

⁹Larry H. Addington, The Patterns of War Since the Eighteenth Century (Bloomington: Indiana University Press, 1984), 205.

¹⁰Addington, 206.

¹¹Weigley, 323.

¹²Addington, 206.

¹³Hermann Kinder and Werner Hilemann, The Anchor Atlas of World History, Vol II., trans. Ernest A. Menze (New York: Doubleday, 1978), 213.

¹⁴Doughty, 3.

¹⁵House, 105.

¹⁶Ibid., 106.

¹⁷Ibid., 107.

¹⁸Ibid., 131.

¹⁹Ibid.

²⁰Doughty, 3.

²¹House, 128.

²²Ibid.

²³Doughty, 2.

²⁴Ibid.

²⁵Ibid.

²⁶Ibid.

²⁷Ibid.

²⁸Ibid.

²⁹Ibid.

³⁰Ibid., 3.

³¹Ibid., 4.

³²Ibid.

³³Ibid., 5.

³⁴Ibid.

³⁵Ibid., 6.

³⁶Ibid.

³⁷Ibid.

³⁸Ibid., 7.

³⁹Michael P. W. Stone and Gordon R. Sullivan, The United States Army Posture Statement FY93 (Washington, DC: Department of the Army, 1992), 53.

⁴⁰Doughty, 7.

⁴¹Ibid.

⁴²Ibid.

⁴³Ibid., 9.

⁴⁴Ibid., 11.

⁴⁵Ibid., 12.

⁴⁶Ibid.

⁴⁷Ibid., 14.

⁴⁸Ibid.

⁴⁹Ibid.

⁵⁰Ibid.

⁵¹Ibid., 15.

⁵²Ibid., 17.

⁵³Ibid.

⁵⁴Ibid., 19.

⁵⁵Ibid., 22.

⁵⁶Ibid., 25.

⁵⁷Ibid.

⁵⁸Ibid., 27.

⁵⁹Ibid., 26.

⁶⁰Ibid., 27.

⁶¹House, 162.

⁶²Doughty, 31.

⁶³Ibid., 30

⁶⁴Ibid., 37.

⁶⁵Ibid.

⁶⁶Ibid., 40.

⁶⁷Paul H. Herbert, Deciding What has to be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations, Leavenworth Papers No. 16 (Fort Leavenworth: Combat Studies Institute, 1988), 98.

⁶⁸Doughty, 46.

⁶⁹Gabel, 93.

⁷⁰Ibid., 92.

⁷¹Ibid., 95.

⁷²Harry G. Summers, Jr., On Strategy II. A Critical Analysis of the Gulf War (New York: Dell Publishing, 1992), 142.

⁷³Ibid.

⁷⁴Gabel, 95.

⁷⁵Herbert, 106.

⁷⁶Gabel, 96.

⁷⁷Ibid., 96.

⁷⁸US Army, FM 100-5, Operations, (Washington, DC: Department of the Army, 1986), i.

⁷⁹Stone, 37.

⁸⁰Ibid.

⁸¹US Army Training and Doctrine Command, "FM 100-5, Operations," Final Draft, Unedited (Fort Monroe: US Army Training and Doctrine Command, 1993), 2-3. (Cited hereafter as FM 100-5.)

⁸²Ibid., 8-1.

⁸³Ibid., 1-3.

⁸⁴Ibid., 2-16.

⁸⁵Ibid., 1-2.

⁸⁶Herbert, 7.

Chapter Five

¹US Army Training and Doctrine Command, "FM 100-5, Operations," Final Draft, Unedited (Fort Monroe: US Army Training and Doctrine Command, 1993), 1-2. (Cited hereafter as FM 100-5.)

²US Army, FM 100-5, Operations, (Washington, DC: Department of the Army, 1986), i.

³Robert A. Doughty, The Evolution of US Army Tactical Doctrine, 1946-76, Leavenworth Papers No. 1 (Fort Leavenworth: Combat Studies Institute, US Army Command and General Staff College, 1979), 46.

⁴Edward J. Drea, Unit Reconstitution--A Historical Perspective, CSI Report No. 3 (Fort Leavenworth: Combat Studies Institute, US Army Command and General Staff College, 1983), 18. (Cited hereafter as CSI report.)

⁵Ibid., 5.

⁶Thomas M. Huber, "Combat Replacements: A Historical Overview," (Fort Leavenworth: US Army Command and General Staff College, 1985), 4.

⁷Ibid.

⁸Ibid.

⁹Ibid.

¹⁰Ibid., 5.

¹¹Ibid.

¹²Ibid.

¹³Drea, 15.

¹⁴Ibid.

¹⁵Ibid.

¹⁶Ibid., 29.

¹⁷Ibid., 29.

¹⁸Ibid., 42.

¹⁹Ibid., 42.

²⁰Curtis N. Marsh, III, "Reconstitution," Military Review, 67-1 (January 1987), 58.

²¹Drea, 44.

²²Ibid., 48.

²³Ibid., 49.

²⁴Huber, 8.

²⁵Ibid., 8.

²⁶Ibid.

²⁷Ibid., 9.

²⁸Ibid., 10.

²⁹Nathan J. Power, "Reconstitution: Leadership Methods and Considerations," Individual Study Project, School of Advanced Military Studies, US Army Command and General Staff College, 1987, 24.

³⁰Ibid., 25.

³¹Harold G. Moore, We Were Soldiers Once...and Young, (New York: Random House, 1992), 9.

³²Ibid., 24.

³³Ibid., 39.

³⁴Ibid.

³⁵Ibid., 62.

³⁶Ibid., 130.

³⁷US Army, "After Action Report, IA DRANG Valley Operation 1st Battalion, 7th Cavalry 14-16 November 1965." (Vietnam: 1st Battalion 7th Cavalry, 1st Cavalry Division (Airmobile)), 8.

³⁸Ibid., 9.

³⁹Ibid., 12.

⁴⁰Moore, xvi.

⁴¹Marsh, 56.

⁴²Ibid., 57.

⁴³US Army Training and Doctrine Command, TRADOC PAM 525-51, Military Operations, US Army Operational Concept for Reconstitution on the AirLand Battlefield, (Fort Monroe: US Army Training and Doctrine Command, 1986), i.

⁴⁴Ibid., 2.

⁴⁵Ibid.

⁴⁶Ibid., 12.

⁴⁷Ibid.

⁴⁸Charles W. Horner, "Reconstituting a Combat Force," Army Logistician 18-4 (Summer 1986), 2.

⁴⁹G. H. Turbiville et al., New Approaches to Reconstitution in High Intensity Conflict on the Modern Battlefield, BDM/W-79-800-TR (McLean, VA: BDM Corporation, 1980), V-14. (Cited hereafter as BDM report.)

⁵⁰Horner, 3.

⁵¹Ibid., 2.

⁵²Ibid., 4.

⁵³Ibid.

⁵⁴Ibid.

⁵⁵Ibid., 5.

⁵⁶TRADOC PAM 525-51, 17.

⁵⁷Ibid.

⁵⁸William G. T. Tuttle, Jr., "Subject: Reconstitution for REFORGER 89," letter to Commander, Forces Command, Fort McPherson, Georgia, and Commander US Army Combined Arms Command, Fort Leavenworth, Kansas, 2 December 1988, 1.

⁵⁹US Army, "After Action Comments, Operation Desert Storm, 24th Infantry Division Support Command," in 24th Infantry Division Combat Team Historical Reference Book (Fort Stewart: Department of the Army, 1991), Document #78.

⁶⁰Ibid.

⁶¹US Department of Defense, Conduct of the Persian Gulf War, Final Report to Congress (Washington, DC: Government Printing Office, 1992), xiii.

⁶²Ibid., 241.

⁶³Ibid., 242.

⁶⁴Thomas B. Allen, F. Clifton Berry, and Norman Polmar, CNN: War in the Gulf, ed. Norman Polmar (Atlanta: Turner Publishing, 1991), 215.

⁶⁵Ibid., p. 212.

⁶⁶William G. Pagonis, Moving Mountains, Lessons in Leadership and Logistics from the Gulf War (Boston: Harvard Business School Press, 1992), 66.

⁶⁷Charles W. Horner, interview by author, author's notes, Fort Leavenworth, 28 March 1993.

⁶⁸Ibid.

⁶⁹Ibid.

⁷⁰Ibid.

Chapter Six

¹The force projection scenario was derived from a variety of sources and reflects a compilation of ideas, concepts and structure. Primary contributing sources include: The

Operations Group, National Training Center, Fort Irwin, California; the Department of Joint and Combined Operations and the Center for Army Tactics, US Army Command and General Staff College, Fort Leavenworth, and the "TRADOC Common Teaching Scenario Latin America (TCTS-LATAM)," Coordinating Draft, unedited, (Fort Leavenworth: US Army Command and General Staff College, 1992).

²The White House, National Security Strategy of the United States (Washington DC: Government Printing Office, 1993), 3.

³Ibid.

⁴Ibid.

⁵US Army Command and General Staff College, C320, Corps and Division Combat Operations Joint Planning Document, (Fort Leavenworth, KS: US Army Command and General Staff College, 1992), JPD-46

⁶Ibid., JD-40.

⁷"Reading W," reprinted from US Department of State, Bureau of Public Affairs "Background Notes-Philippines," in C520, Operations in Low Intensity Conflict (Fort Leavenworth: US Army Command and General Staff College, 1992), 442.

⁸Ibid.

⁹"Introduction to Insurgency Analysis," reprinted from "Why Men Rebel" by Ted Robert Gurr, in C520, Operations in Low Intensity Conflict (Fort Leavenworth: US Army Command and General Staff College, 1992), 19.

¹⁰Charles R. Larson, "Statement by Charles R. Larson, Commander in Chief, United States Pacific Command Before the House Armed Services Committee, 9 April 1992," in C520, Operations in Low Intensity Conflict (Fort Leavenworth: US Army Command and General Staff College, 1992), 435.

¹¹"Reading W," 444.

Chapter Seven

¹Russell W. Ramsey, "World Systems, Challenges: 1993-2025," ROA National Security Report, April 1993, 43.

²US Army Training and Doctrine Command, "FM 100-5, Operations," Final Draft, Unedited (Fort Monroe: US Army Training and Doctrine Command, 1993), 1. (Cited hereafter as FM 100-5.)

³Michael P. W. Stone and Gordon R. Sullivan, The United States Army Posture Statement FY93 (Washington, DC: Department of the Army, 1992), 28.

⁴US Army, FM 100-9, Reconstitution, (Washington, DC: Department of the Army, 1992), A-1.

⁵Ibid., 4-9.

⁶FM 100-5, 1-1.

APPENDIX A

Glossary

AAF	US Army Air Forces
AART	Assessment and Recovery Team
ACR	Armored Cavalry Regiment
AFSC	Armed Forces Staff College
ALB	AirLand Battle
ARCENT	Army Forces Command, Central Command
ARFOR	Army Forces Command (generic)
ARTEP	Army Training and Evaluation Program
ASL	Authorized Stockage List
AUSA	Association of the United States Army
AVIM	Aviation Intermediate Maintenance
BPDF	Balinese People's Defense Forces
CBMG	Carrier Battle Group
CDAE	Casualty and Damage Assessment Element
CGSC	US Army Command and General Staff College
CINC	Commander-in-Chief
CINCFORSCOM	Commander-in-Chief, US Forces Command
CINCTROCOM	Commander-in-Chief, US Tropic Command
CIS	Commonwealth of Independent States
CNN	Cable News Network

CONPLAN	Concept Plan
CONUS	Continental United States
COSCOM	Corps Support Command
CP	Command Post
CPU	Coastal Patrol Unit
CRAF	Civil Reserve Air Fleet
CRU	Corps Regeneration Unit
CSI	Combat Studies Institute
CSS	Combat Service Support
DDVM	The Doctrinal Development and Validation Model
DISCOM	Division Support Command
DOD	Department of Defense
DRB	Division Ready Brigade
DSA	Division Support Area
EDRE	Emergency Deployment Readiness Exercise
FORSCOM	Forces Command
FSB	Forward Support Battalion
FSO	Fire Support Officer
HET	Heavy Equipment Transporter
IG	Inspector General
ISB	Intermediate Staging Base
JCS	Joint Chiefs of Staff
JDF	Jamanian Defense Forces
JPD	Joint Planning Document
JSOTF	Joint Special Operations Task Force
JTF	Joint Task Force

KIA	Killed-In-Action
KMC	Karl Marx City
LATAM	Latin America
LZ	Landing Zone
MEB	Marine Expeditionary Brigade
MIA	Missing-In-Action
MMAS	Master of Military Art and Science
MPS	Maritime Positioning Ships (squadron)
MSB	Main Support Battalion
MWR	Morale, Welfare, and Recreation
NAVFOR	Naval Forces Command (generic)
NCA	National Command Authorities
NDF	Naval Defense Fleet
ODS	Operation Desert Storm
OPCON	Operational Control
OPLAN	Operation Plan
OPORD	Operation Order
OPREP-3	message format used for event/incident report
OTO	Oceana Theater of Operations
PERSCOM	US Army Personnel Command
PLF	People's Liberation Front
PLL	Prescribed Load List
PMCS	Preventive Maintenance Checks and Services
POMCUS	Prepositioned Materiel Configured to Unit Sets
PRA	People's Revolutionary Army
PRP	People's Revolutionary Party

REFORGER	Return of Forces to Germany
RO/RO	Roll on/Roll off ship
RRD	Replacement Regulating Detachment
RTC	Replacement Training Center
RTF	Reconstitution Task Force
SOF	Special Operations Force
SOP	Standing Operating Procedure
ST	Student Text
SUPCOM	Support Command
TAA	Tactical Assembly Area
TCTS	TRADOC Common Teaching Scenario
TF	Task Force
TLF	Tarawak Liberation Front
TRADOC	US Army Training and Doctrine Command
TROCOM	US Tropic Command
USTRANSCOM	US Transportation Command
USTROCOM	US Tropic Command
WIA	Wounded-In-Action
WSRO	Weapon System Replacement Operations

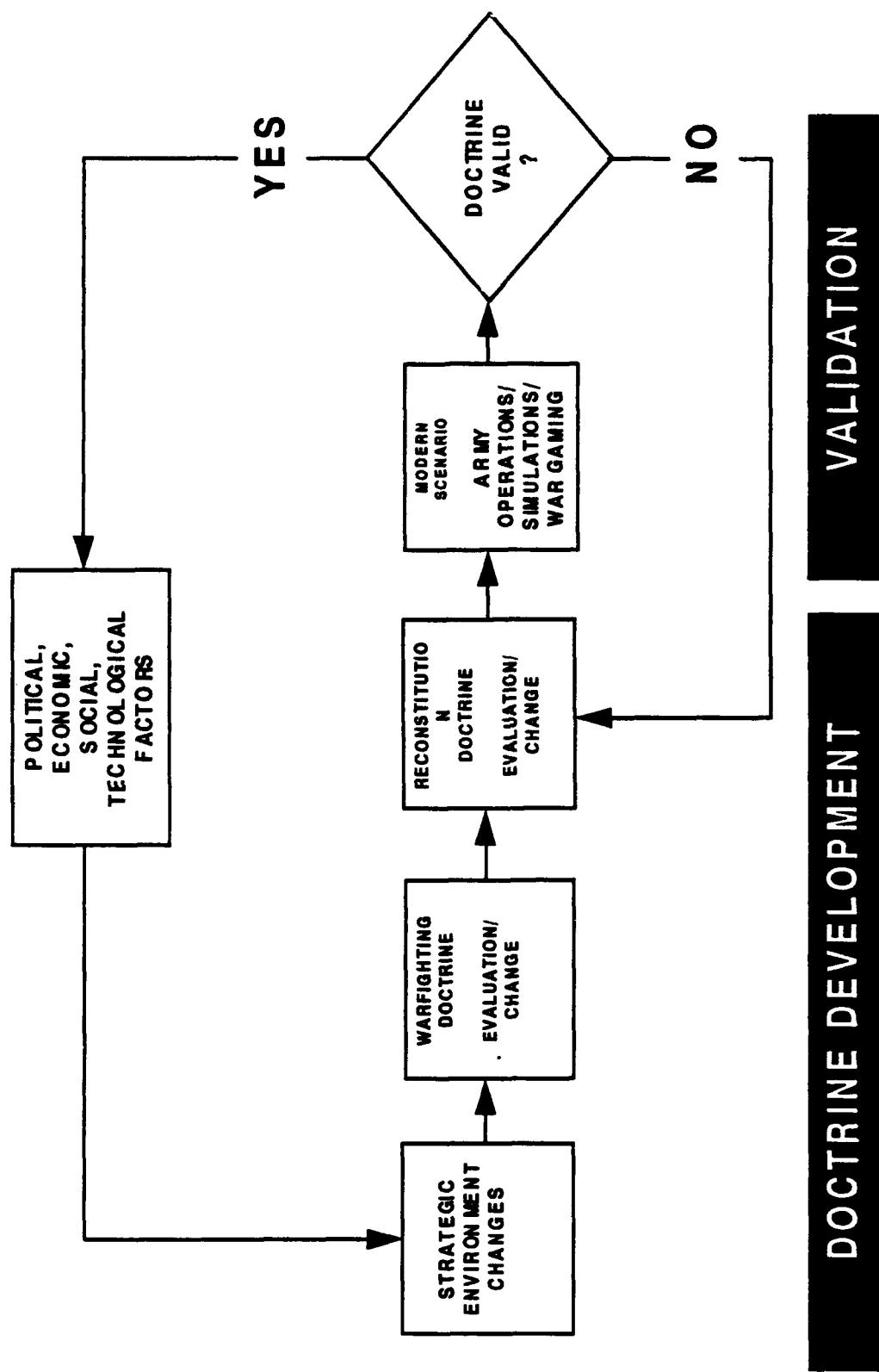


Figure 1. The Doctrinal Development and Validation Model (DDVM)

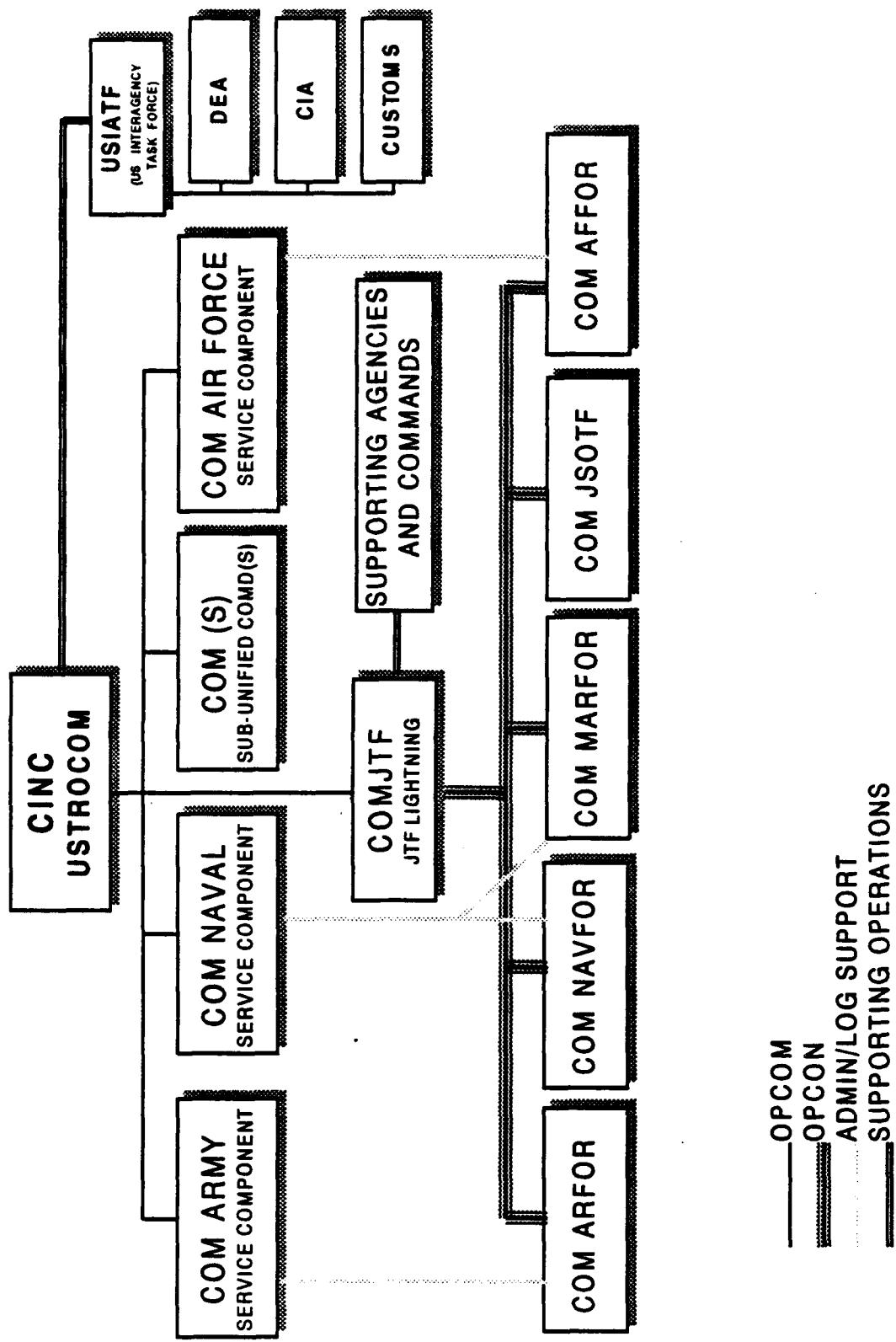


Figure 2. USTROCOM Command Relationships

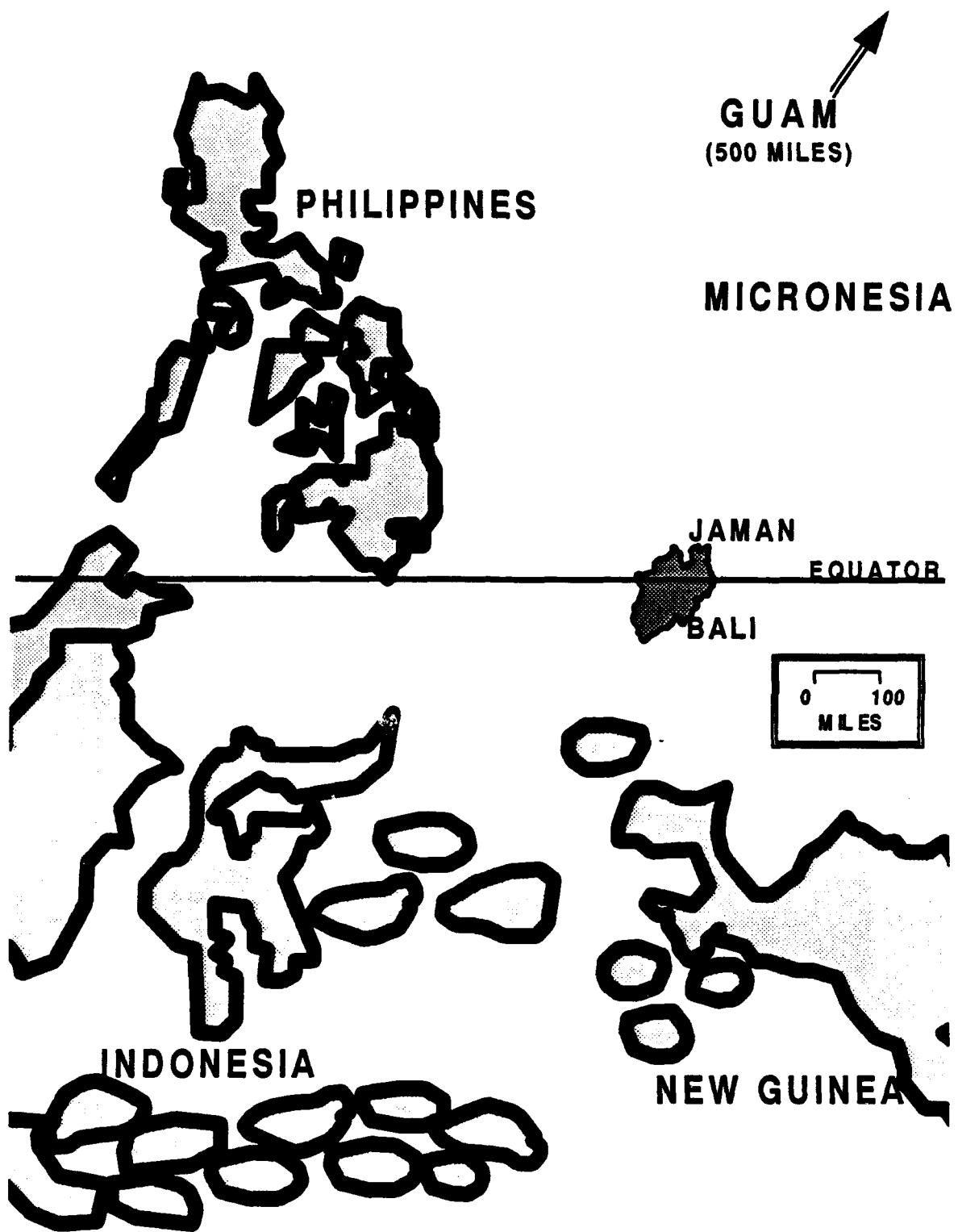


Figure 3. The Tropic Ocean (Oceania Theater of Operations)

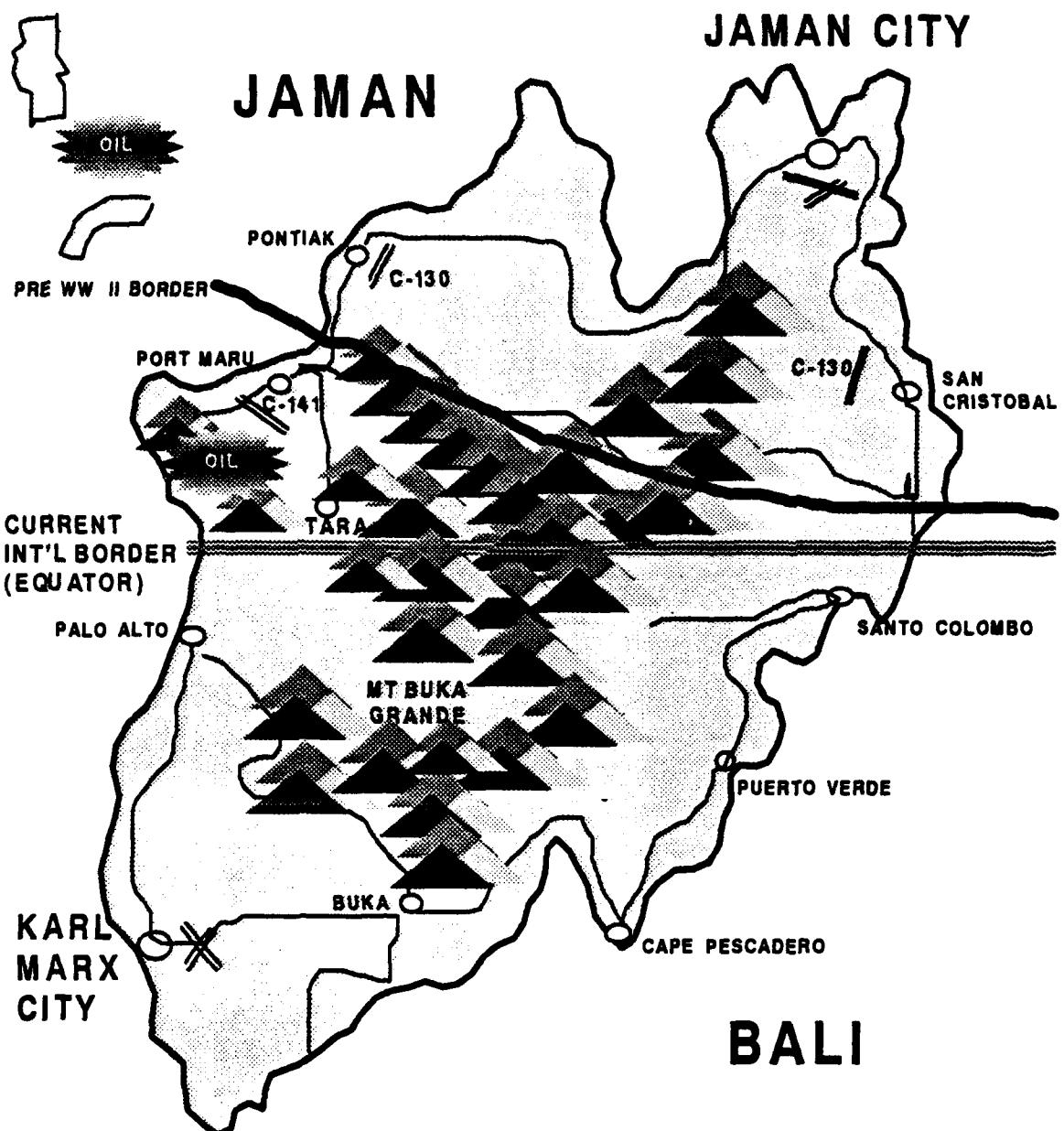


Figure 4. Map of Jaman and Bali

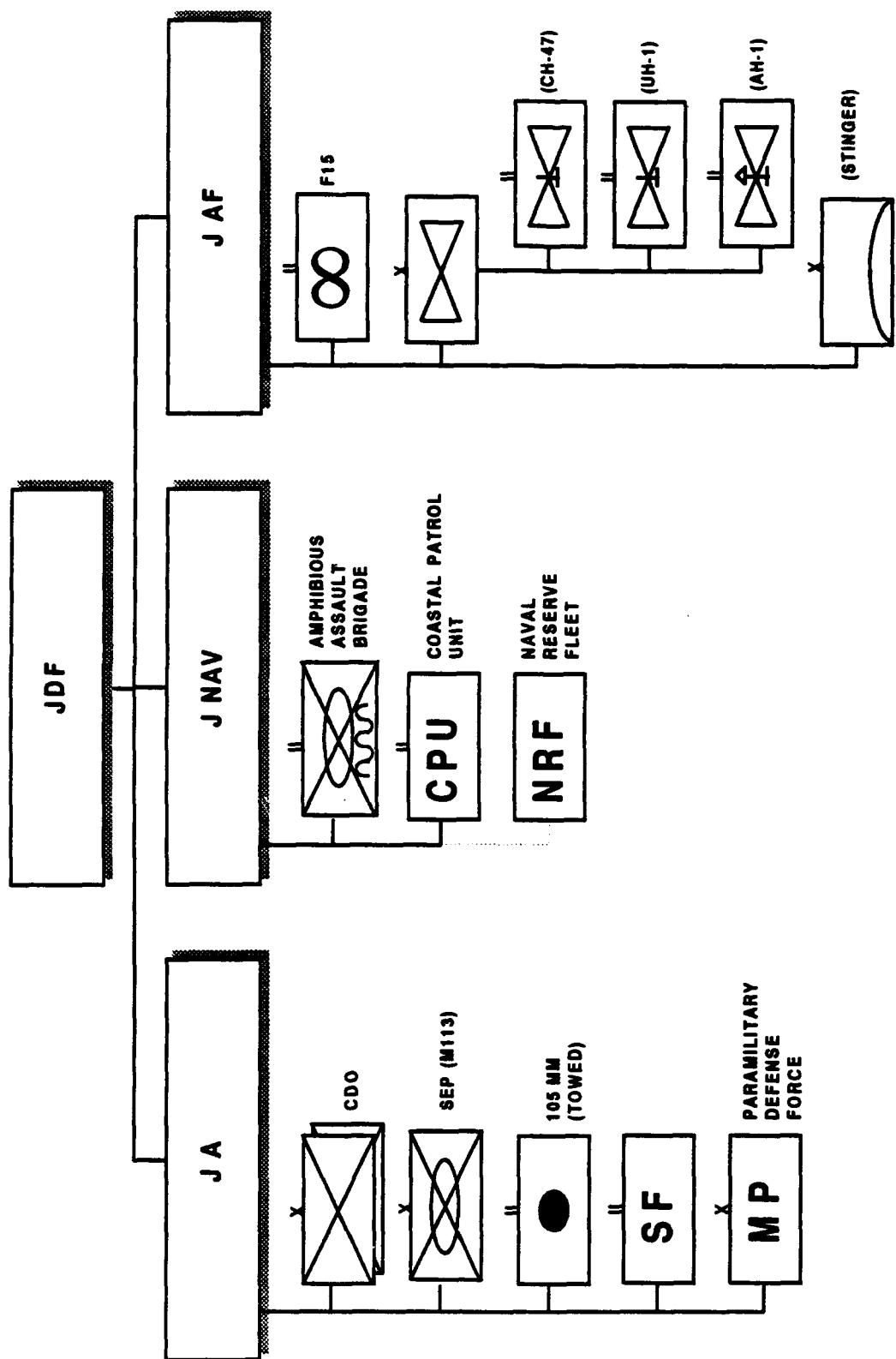


Figure 5. Jaman Defense Forces (JDF) Organization Chart

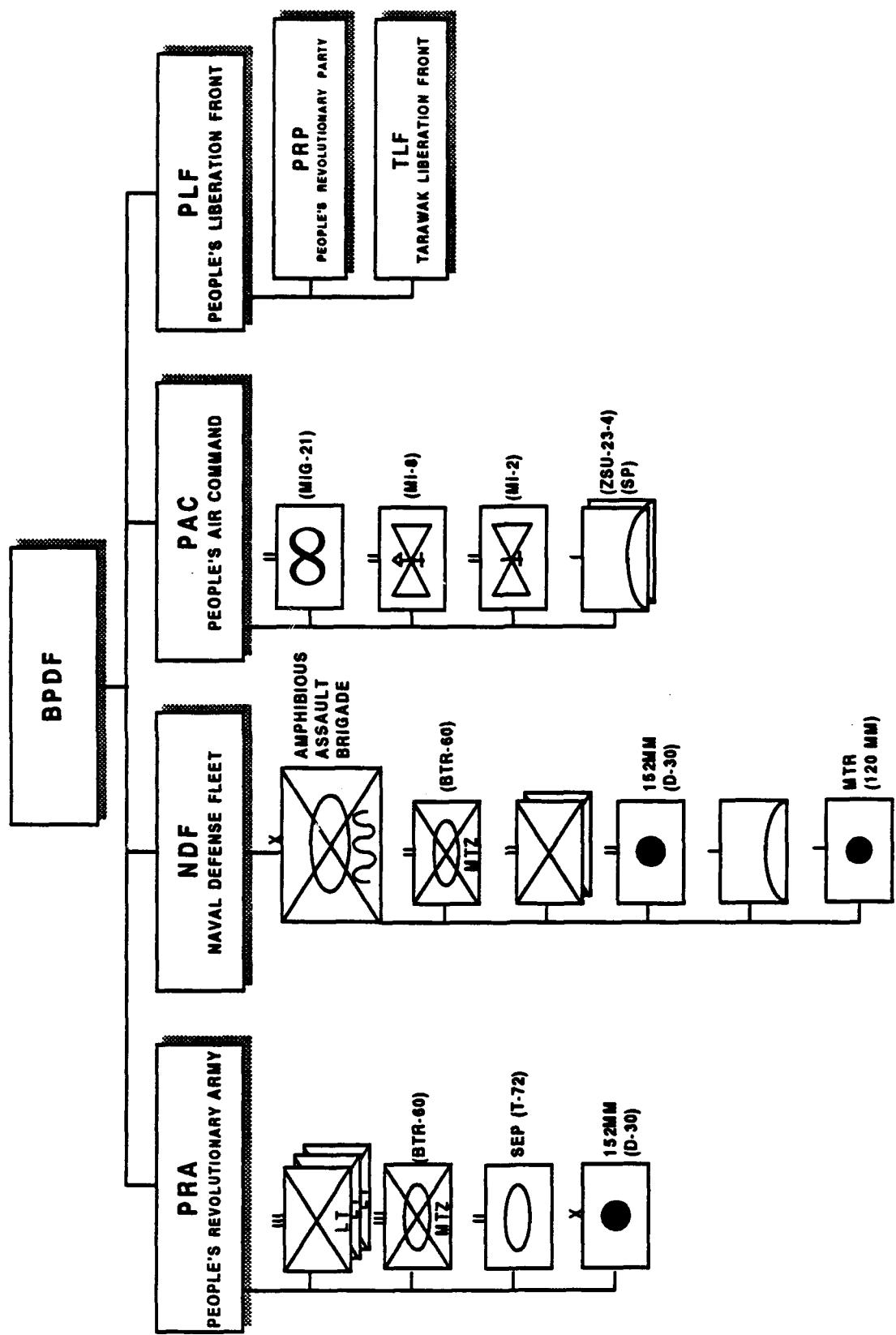


Figure 6. Balinese People's Defense Forces (BPDF) Organization Chart

JTF LIGHTNING

HHC, 21st Airborne Corps

ARFOR (OPCON)

Task Force THUNDER
21st Airborne Division
26th Infantry Division
JA (Jamanian Army)
1st Infantry Battalion (Fiji)
21st Corps Aviation Brigade
21st Corps Artillery
21st Air Defense Artillery Brigade
3d Engineer Brigade (Australia)
21st Military Intelligence Brigade
21st Signal Brigade
21st Corps Support Command

AFFOR (OPCON)

52d Air Force (-)

NAVFOR (OPCON)

Task Group 72 (7th Fleet)
1st CBMG (USS Halsey)

MARFOR (OPCON)

3d Marine Expeditionary Brigade

JSOTF (OPCON)

1-13 Special Forces Battalion
3d Ranger Battalion (US)
1-150 Aviation Battalion
7th Psychological Operations Group

CMO TF (OPCON)

301st Civil Affairs Brigade

Figure 7. Task Organization, Joint Task Force LIGHTING

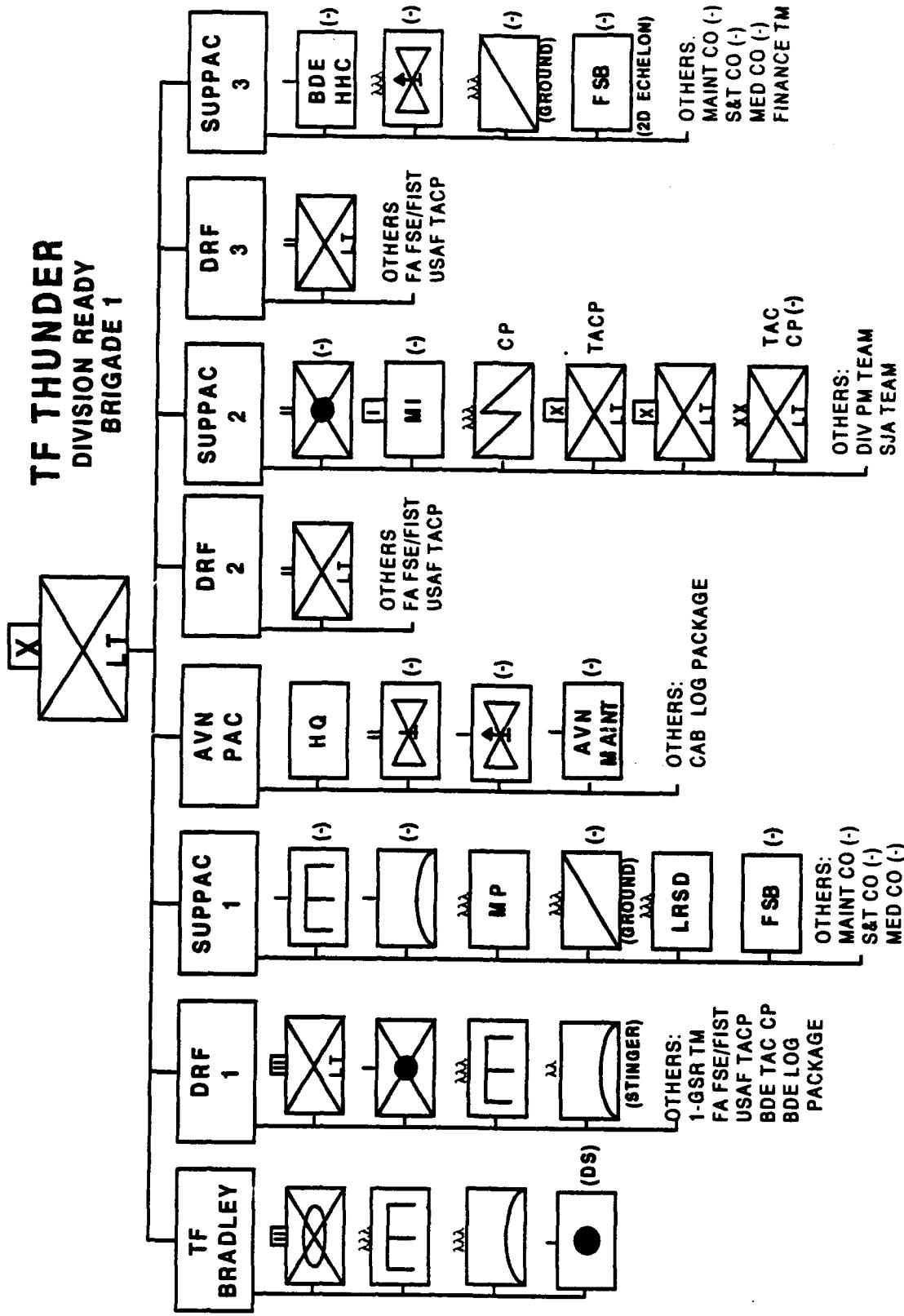


Figure 8. Task Force THUNDER, Task Organization

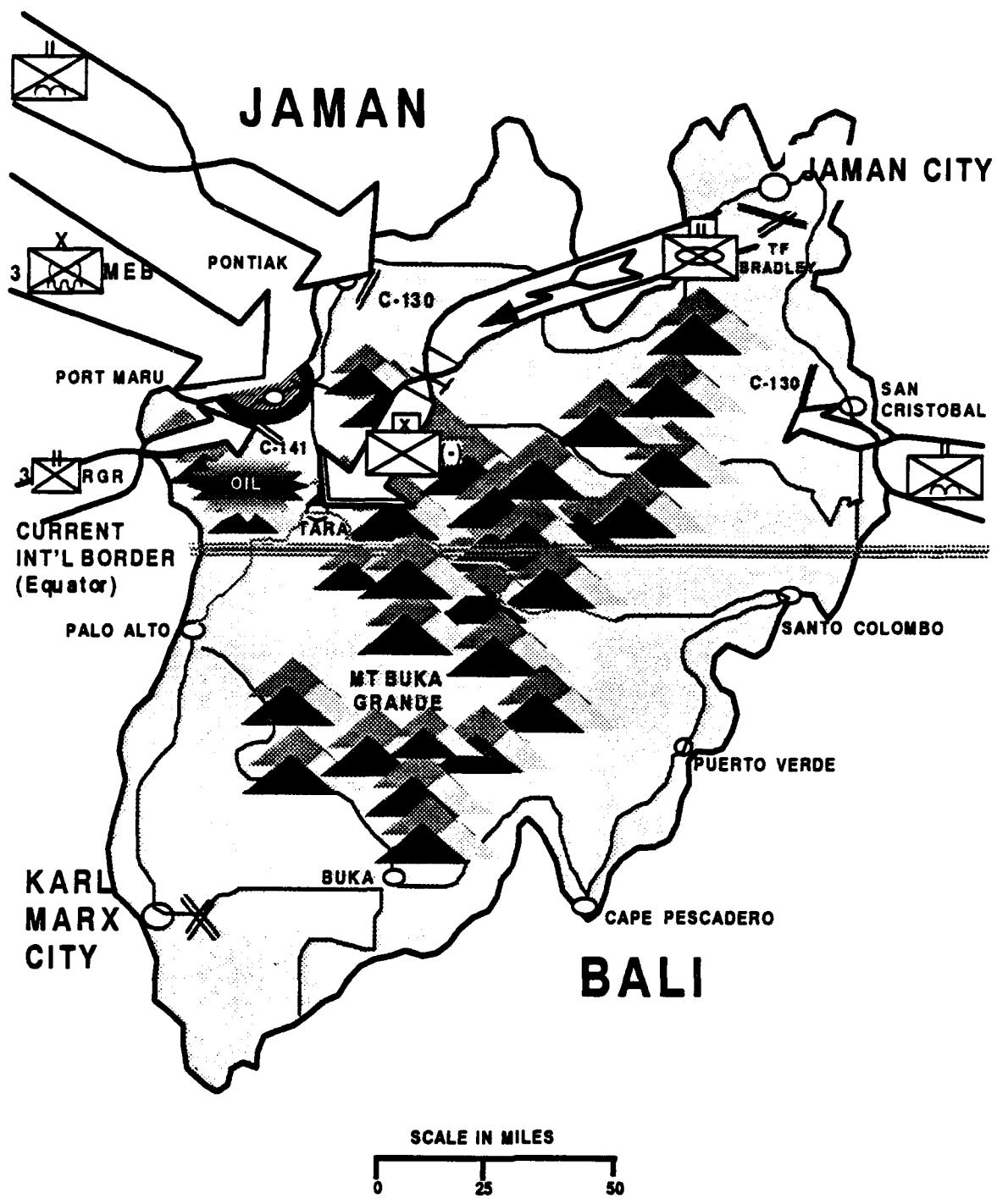


Figure 9. Phase II, Operation Tropic Lightning

CRITERIA	OPTION			
	#1 REDEPLOY	#2 REPLACE	#3 INDIVIDUAL REPLACEMENT	#4 PACKAGE REPLACEMENT
TEMPO Minimizes Disruption of Campaign Tempo	3	1	4	2
COMBAT POWER Maximizes JTF Combat Power	4	1	3	2
EASE OF EXECUTION Most Efficient Use of Available Resources	1	3	4	2
EFFECTIVENESS Maximizes Combat Effectiveness of TF THUNDER	3.5	3.5	1	2
COMMAND AND CONTROL Promotes Unity of Command and Control	3	1	4	2
TOTAL	14.5	9.5	16	10

Note: Lower Numbers are better.
(Staff Recommendation)

Figure 10. JTF LIGHTNING Course of Action Comparison (Decision Matrix)

BIBLIOGRAPHY

Books

- Addington, Larry H. The Patterns of War Since the Eighteenth Century. Bloomington: Indiana University Press, 1984.
- Allen, Thomas B., F. Clifton Berry, and Norman Polmar. CNN: War in the Gulf. Edited by Norman Polmar. Atlanta: Turner Publishing, 1991.
- Association of the United States Army. Profile of the Army: A Reference Handbook. Arlington: Association of the United States Army, Institute of Land Warfare, 1993.
- BDM Corporation. Final Report: A Review of Army and Air Force Processes Used in Generating Wartime Force Structure Casualty Replacement Requirements. McLean: BDM Corporation, 1979.
- Cordesman, Anthony H. "Compensating for Smaller Forces: Adjusting Ways and Means Through Technology." In Strategy and Technology. Carlisle Barracks: Strategic Studies Institute, US Army War College, 1992.
- Currey, Cecil B. Follow Me and Die: The Destruction of an American Division in World War II. New York: Stein and Day, 1984.
- Donnelly, Thomas. Operation Just Cause: The Storming of Panama. New York: Lexington Books, 1991.
- Dorr, Robert F. Desert Shield, The Build-Up: The Complete Story. Osceola: Motorbooks International, 1991.
- Doughty, Robert A. The Evolution of US Army Tactical Doctrine, 1946-76. Leavenworth Papers No. 1. Fort Leavenworth: Combat Studies Institute, US Army Command and General Staff College, 1979.
- Drea, Edward J. Unit Reconstitution--A Historical Perspective. CSI Report No. 3. Fort Leavenworth: Combat Studies Institute, US Army Command and General Staff College, 1983.

- Dunnigan, James F., and Austin Bay. From Shield to Storm: High Tech Weapons, Military Strategy, and Coalition Warfare in the Persian Gulf. New York: William Morrow, 1992.
- Friedman, Norman. Desert Victory: The War for Kuwait. Annapolis: Naval Institute Press, 1991.
- Gabel, Christopher R. "Doctrine, Active Defense." In Combined Arms in Battle Since 1939. Edited by Roger J. Spiller. Fort Leavenworth: US Army Command and General Staff College Press, 1992.
- Herbert, Paul H. Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations. Leavenworth Papers No. 16. Fort Leavenworth: Combat Studies Institute, US Army Command and General Staff College, 1988.
- House, Jonathan M. Toward Combine Arms Warfare: A Survey of 20th--Century Tactics, Doctrine, and Organization. Fort Leavenworth: Combat Studies Institute, US Army Command and General Staff College, 1984.
- International Institute for Strategic Studies. The Military Balance, 1992-1993. London: International Institute for Strategic Studies, 1992.
_____. Strategic Survey, 1990-1991. London: International Institute for Strategic Studies, 1991.
- Kinder, Hermann, and Werner Hilgemann. The Anchor Atlas of World History. Vol. 2. Translated by Ernest A. Menze. New York: Doubleday, 1978.
- MacDonald, Charles B. The Battle of the Huertgen Forest. New York: Jove Books, 1963.
_____. The Siegfried Line Campaign. The U.S. Army in World War II: European Theater. Washington, DC: Government Printing Office, 1984.
- MacDonald, Charles B and Sidney T. Mathews. Three Battles: Arnaville, Altuzzo, and Schmidt. The U.S. Army in World War II. Washington, DC: Government Printing Office, 1952.
- Moore, Harold G., and Joseph L. Galloway. We Were Soldiers Once...And Young: Ia Drang-The Battle That Changed the Vietnam. New York: Random House, 1992.
- Pagonis, William G., and Jeffrey L. Cruikshank. Moving Mountains: Lessons in Leadership and Logistics from the Gulf War. Boston: Harvard Business School Press, 1992.

- Smiley, Ronald H. and Gilbert L. Theroux. Reconstitution on the AirLand Integrated Battlefield. Alexandria: JAYCOR Company, 1981.
- Snow, Donald M. Peacekeeping, Peacemaking and Peace-Enforcement: The U.S. Role in the New International Order. Carlisle Barracks: Strategic Studies Institute, US Army War College, 1993.
- Stanton, Shelby L. Anatomy of a Division: The 1st Cav in Vietnam. Novato: Presidio Press, 1987.
- Stone, Michael P. W. and Gordon R. Sullivan. The United States Army Posture Statement FY93. Washington, DC: Department of the Army, 1992.
- Summers, Harry G., Jr. On Strategy II: A Critical Analysis of the Gulf War. New York: Dell Books, 1992.
- Thompson, Julian. The Lifeblood of War: Logistics in Armed Conflict. London: Brassey's, 1991.
- Turbiville, G. H., et al. Part I: Final Report, New Approaches to Reconstitution in High Intensity Conflict on the Modern Battlefield. BDM/W-79-800-TR McLean: BDM Corporation, 1982.
- Weigley, Russell F. The American Way of War: A History of United States Military Strategy and Policy. Bloomington: Indiana University Press, 1977.
- Ursano, Robert J. et al. Exposure to Death, Disasters, and Bodies. Bethesda: Department of Psychiatry, F. Edward Herbert School of Medicine, Uniformed Services University of the Health Sciences, 1988
- _____. Groups and Organizations in War, Disasters, and Trauma. Bethesda: Department of Psychiatry, F. Edward Herbert School of Medicine, Uniformed Services University of the Health Sciences, 1988.

Periodicals and Articles

- Association of the United States Army. "Chief Of Staff Discusses Today's Changing Army," AUSA News, edited by Peter F. Murphy, Jr. 15-5 (April 1993): 1-20.
- Aspin, Les. "With the Soviets and Cold War Gone, What is the Future of US Forces?" ROA National Security Report (November 1992): 1-26.

Center for Army Lessons Learned, US Army Combined Arms Command. Bulletin: Operation Just Cause Lessons Learned, Volume III. Intelligence, Logistics and Equipment 90-9 (October 1990): 16-20.

Center for Army Lessons Learned, US Army Combined Arms Command. Newsletter: Battlefield Logistics 91-5 (December 1991): 1-15.

Center for Army Lessons Learned, US Army Combined Arms Command. Newsletter: Getting to the Desert 90-11 (December 1990): 1-29.

Center for Army Lessons Learned, US Army Combined Arms Command. Newsletter: Logistics Preparation of the Battlefield 92-5 (November 1992): 1-14.

Center for Army Lessons Learned, US Army Combined Arms Command. Special Edition: Somalia, Operations Other Than War 93-1 (January 1993): 1-34.

Center for Army Lessons Learned, US Army Training Activity. "Combat Service Support," Newsletter: Winning in the Desert II 90-8 (September 1990): 16-20.

Center for Army Lessons Learned, US Army Training Activity. "Reconstitution," Bulletin 1-87 (April 1987): 14-17.

"The Changing Strategic Environment," Defense 92: Strategies for a Changing World. Reprinted from 1992 Joint Military Net Assessment (November/December 1992) 3-13.

Clarke Philip C. "Civil Defense Roles Include Natural and Military Disasters," ROA National Security Report (November 1992): 27-28.

"Crisis Response: Minimal Maneuvering Room," Defense 92: Strategies for a Changing World. Reprinted from 1992 Joint Military Net Assessment (November/December 1992): 14-21.

Horner, Charles W. "Reconstituting a Combat Force," Army Logistian 18-4 (Summer 1986): 2-5.

Kutter, Wolf-Dietrich. "The United States Army at the Crossroads to the 21st Century," Landpower Essay Series 92-3 (August 1992): 1-7.

Marsh, Curtis N. III. "Reconstitution," Military Review 47-1 (January 1987): 56-61.

Merritt, Jack N. "US National Security, the Pacific and China," Landpower Essay Series 92-4 (September 1992): 1-9.

Pagonis, William G. and Michael D. Krause. "Operational Logistics in the Gulf War," The Land Warfare Papers 13 (October 1992): 1-17.

Ramsey, Russell W. "World Systems, Challenges: 1993-2025," ROA National Security Report (April 1993): 43-44.

Reitz, John W. "FM 100-5: Manual for the Engine of Change," Today's Challenge: Tomorrow's Army II (January 1993): 4-5.

Ross, Jimmy D. "Logistics For Tomorrow's Army," Today's Challenge: Tomorrow's Army (January 1992): 6:1-6:3.

Solomon, Zahava. "Does the War End When the Shooting Stops? The Psychological Toll of War," Journal of Applied Social Psychology Part I, 20-21 (December 1990): 1733-1745.

Government Documents

Armed Forces Staff College. AFSC PUB 1, The Joint Staff Officer's Guide 1991. Norfolk: Armed Forces Staff College, 1991.

National Guard Bureau. Army National Guard After Action Report, Operation Desert Shield, Operation Desert Storm, 2 August 1990-28 February 1991. Arlington: National Guard Bureau, 1991.

US Army. "After Action Comments, Operation Desert Storm, 24th Infantry Division Support Command." In 24th Infantry Division Combat Team Historical Reference Book. Unedited. Fort Stewart: Department of the Army, 1991.

_____. "After Action Report, IA DRANG Valley Operation 1st Battalion, 7th Cavalry 14-16 November 1965." Vietnam: 1st Battalion, 7th Cavalry, 1st Cavalry Division (AIRMOBILE), 1965.

_____. Army Focus. Washington, DC: Department of the Army, 1991.

_____. FM 12-6, Personnel Doctrine. Washington, DC: Department of the Army, 1989.

_____. FM 55-15, Transportation Reference Data. Washington, DC: Department of the Army, 1986.

_____. FM 63-3J, Combat Service Support Operations--Corps. Washington, DC: Department of the Army, 1985.

_____. FM 71-100, Division Operations. Washington, DC: Department of the Army, 1990.

- _____. FM 90-4, Air Assault Operations. Washington, DC: Department of the Army, 1987.
- _____. FM 90-26, Airborne Operations. Washington, DC: Department of the Army, 1990.
- _____. FM 100-5, Field Service Regulations. Washington, DC: Department of the Army, 1941.
- _____. FM 100-5, Field Service Regulations, Operations. Washington, DC: Department of the Army, 1949.
- _____. FM 100-5, Field Service Regulations, Operations. Washington, DC: Department of the Army, 1954.
- _____. FM 100-5, Operations. Washington, DC: Department of the Army, 1986.
- _____. FM 100-5, Operations of Army Forces in the Field. Washington, DC: Department of the Army, 1968.
- _____. FM 100-9, Reconstitution. Washington, DC: Department of the Army, 1992
- _____. FM 100-15, Corps Operations. Washington, DC: Department of the Army, 1989.
- US Army Command and General Staff College. C320, Corps and Division Combat Operations. Fort Leavenworth: US Army Command and General Staff College, 1992.
- _____. C320, Corps and Division Combat Operations. Joint Planning Document. Fort Leavenworth: US Army Command and General Staff College, 1992.
- _____. C510, Joint and Combined Environments. Fort Leavenworth: US Army Command and General Staff College, 1992.
- _____. C520, Operations in Low Intensity Conflict. Fort Leavenworth: US Army Command and General Staff College, 1992.
- _____. ST 63-1, AirLand Battle Sustainment Doctrine (Division and Corps). Fort Leavenworth: US Army Command and General Staff College, 1992.
- _____. ST 100-9, The Command Estimate Process. Fort Leavenworth: US Army Command and General Staff College, 1992.
- _____. Strike Operations, Handbook for Commanders. Fort Leavenworth: US Army Command and General Staff College, 1990.

- US Army Training and Doctrine Command. TRADOC PAM 525-51, Military Operations, US Army Operational Concept for Reconstitution on the AirLand Battlefield. Fort Monroe: US Army Training and Doctrine Command, 1986.
- . TRADOC PAM 525-5, A Concept for the Evolution of AirLand Battle for the Strategic Army of the 1990s and Beyond. Fort Monroe: US Army Training and Doctrine Command, 1991.
- US Congress, Office of Technology Assessment. After the Cold War: Living with Lower Defense Spending. OTA-ITE-524. Washington, DC: Government Printing Office, 1992.
- US Department of Defense. Annual Report to the President and the Congress. Washington, DC: Government Printing Office, 1993.
- . Conduct of the Persian Gulf War. Final Report to Congress. Washington, DC: Government Printing Office, undated.
- . JCS PUB 3-0, Doctrine for Unified and Joint Operations (Test Pub). Washington, DC: Government Printing Office, 1990.
- . JCS PUB 5-00.2, Joint Task Force (JTF) Planning Guidance and Procedures (Test Pub). Washington, DC: Government Printing Office, 1988.
- . JOINT PUB 1, Joint Warfare of the US Armed Forces. Washington, DC: Government Printing Office, 1991.
- . National Military Strategy of the United States. Washington, DC: Government Printing Office, 1991.
- . National Military Strategy of the United States. Washington, DC: Government Printing Office, 1992.
- The White House. National Security Strategy of the United States. Washington, DC: Government Printing Office, 1991.
- . National Security Strategy of the United States. Washington, DC: Government Printing Office, 1993.

Unpublished Materials

Engels, Keith H. "Reconstitution: A Study of United States Army General Support Supply and Maintenance Unit Doctrine for Reconstitution of Primary Weapon Systems." Thesis, US Army Command and General Staff College, 1985.

Hinebaugh, James C. Jr. "Reconstitution--Winning Beyond the First Battle." Individual Study Project, US Army War College, 1988.

Huber, Thomas M. "Combat Replacements: A Historical Overview." Paper prepared for the Deputy Chief of Staff Personnel (DCS PER), US Army, Combat Studies Institute, US Army Command and General Staff College, 1985.

Johnson, Thomas E. "Reconstitution--A Combat Force Multiplier." Individual Study Project, US Army War College, 1989.

Livingston, Raymond L. Jr. "Reorganization During Combat--Considerations for a Mechanized Infantry Company." Thesis, US Army Command and General Staff College, 1985.

Power, Nathan J. "Reconstitution: Leadership Methods and Considerations." Individual Study Project, School of Advanced Military Studies, US Army Command and General Staff College, 1987.

US Army Command and General Staff College. "TRADOC Common Teaching Scenario Latin America (TCTS-LATAM)," Coordinating Draft. Unedited. Fort Leavenworth: US Army Command and General Staff College, 1992.

US Army, Training and Doctrine Command. "FM 100-5, Operations," Final Draft. Unedited. Fort Monroe: US Army Training and Doctrine Command, 1993.

US Army, 7th Infantry Division (Light). "Fort Ord Pam 10-1, 7th Infantry Division (Light) Capabilities Book," Draft. Unedited. Fort Ord: 7th Infantry Division (Light), 1989

Other Sources

Dunham, Jeffrey M, Operations Group, National Training Center, Fort Irwin.
Telephonic interview by author, 2 April 1993, Fort Leavenworth. Author's notes.

Horner, Charles W., Faculty member, US Army Command and General Staff College.
Interview by author, 28 March 1993, Fort Leavenworth. Author's notes.

Tuttle, William G. T. "Subject: Reconstitution for REFORGER 89." Letter to Commander, Forces Command, Fort McPherson, Georgia, and Commander US Army Combined Arms Command, Fort Leavenworth, Kansas, 2 December 1988, 1.

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